VOICE OF THE DIABETIC

A SUPPORT AND INFORMATION NETWORK

The Diabetics Division of The National Federation of the Blind

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Voice of the Diabetic is a national publication of the Diabetics Division of the National Federation of the Blind. It is read by those interested in all aspects of blindness and diabetes. We show diabetics that they have options regardless of the ramifications they may have had. We have a positive philosophy and know that positive attitudes are contagious!

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Life in These Shoes

by Royanne R. Hollins

Diabetic. Person with diabetes. Anyway it is said, the meaning is the same. It means different. It means control. It means education. It means challenge.

Diagnosis of diabetes causes a series of emotions to take form. You tend to experience each — one phase at a time. Denial comes and stays with you. It consumes you. You think of nothing else until acceptance develops. Even though denial may come and stay for years, acceptance can and will develop. "Why me" plagues you for months, sometimes years, and tends to re-visit you periodically throughout the remainder of your life. Education and control tend to follow acceptance; however, they may beat acceptance to the punch. Once education and control become friends, coping with complications grows to be a necessity. Coping with complications will be something you want or feel you must put off as long as possible. If acceptance, education and control can be focused upon, complications may be delayed many, many years. However, if and when they do develop, having been focused on the aspects of acceptance, education and control, you will be better prepared to cope with complications.

Life in these shoes as diabetic or a person with diabetes involves cooperation between you and your health care team. It involves time schedules, keeping calendars, keeping diaries, and remembering. Remembering what you've just been told to do, when to take your shot or pill, to exercise and, oh yes, to eat. Sprinkle in home blood glucose tests on schedule and you have a very full, active lifestyle.

But oh, we cannot forget that the calendars we keep are chock full of appointments, appointments, appointments. We have our endocrinologist — our "main man" — who is our life line. We have our dietician, our podiatrist and, of course, our ophthalmologist. Then, as other needs arise, we may add our neurologist, neurosurgeon and general surgeon. Whew —did we cover them all? For now, yes.

To Royanne R. Hollins, a long-term insulin dependent diabetic, diabetes "means a challenge." She says that life in the shoes of a diabetic is different, sometimes rough, and always a challenge. She makes diabetic education and control her friends.

Our diaries are records of our life. They record any special types of stress we are undergoing on a particular day, at a particular time, be it good or bad. They record our diet, both good and bad, and, hopefully, our exercise habits. Our diaries become a part of us, as do our calendars, our medications and our blood meters.

Life in these shoes can be rough. It can be full of hope and very positive living. It can also be plagued by depression, bad news and the need to overcome. It is a difficult life. But, it is a full life, indeed, which encompasses ourselves, our spouses, our parents, our children, our relatives and our friends.

Life in these shoes is definitely different. It is not with dull moments mounting into days, months and years. There is always something going on. You do not turn off or ignore your diabetes to have it "go away" without a trace. In fact, the more you are involved, actively involved, with your diabetes the better it seems to treat you. That may not always be the case, but that is the way it feels. I know, at times you do "all the right things" and still your body seems to be your enemy and turns on you. Yes, but what about all the years preceding the time you do "all the right things"?

Life in these shoes can be a miracle. I know. I experienced little to no vision in one eye over a 7-month period of time. However, after surgery, that sight has been restored. I experienced out-of-control blood sugar levels for what seemed to be "no reason at all". However, after intense therapy (including an insulin pump), my A1c results are absolutely wonderful and almost unbelievable.

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We Can Do It

by Marc Maurer

(**Editor's Note**: The following address was transcribed by Catherine Randall, editor, *The Month's News*, Jacksonville, IL from her recording of NFB President Marc Maurer's banquet address to the 1988 Missouri State Convention, March 26, 1988, at Days Inn, Columbia, Missouri. It appeared in the May 1988 issue of *The Month's News*, a newsletter published by the National Federation of the Blind of Illinois.)

The optimist says that this is the best of all possible worlds. And the pessimist says unfortunately you're probably right. It depends upon the attitude one way or the other. One way, thinking of what might be; and the other, deploring what is.

What is it that we should work for? What is it that we want to do? What is it that we want to be? Those are questions which we have been asking today. Those questions bring us together here at this convention of the National Federation of the Blind of Missouri.

As I came to the convention, it reminded me of another time I came to Missouri, this time in St. Louis. There was a Job Opportunities for the Blind seminar. Some of you were there. Our Missouri president, Gary Wunder, was there. My job during that seminar, at least in part, was to conduct an interview. As I sat in the room and listened to the proceedings, as I considered the activities of the day, I said to myself, it is good that we are having this seminar to help blind people find jobs. And I thought, it is a shame that the people in this room will never be chief executive officers of IBM or Xerox. And after I said that to myself.....I thought about it for a while.....and I thought, "You arrogant fellow. What is it that caused you to assume automatically that blind people in this room will not ever have the responsible positions you think about!"

Now, I could have explained it away because there aren't that many people who will ever be chief executive officers of Xerox or IBM. And consequently it is a good guess, no matter what group of people you are with, that nobody in that group will ever be a chief executive officer for Xerox or IBM, or any company of comparable size. But I knew that as I was thinking of explaining it away, that was not what I meant.

I meant something else. I meant that people who are blind cannot be expected to carry that responsibility. I meant that although I spend almost all of my time working on matters dealing with blindness, and although I have been a member of this organization for this many years, although I had tried over and over to persuade others that blindness is not a limitation, I assumed automatically, because the audience I was addressing was composed of blind people, that the people in the room would not have the capacity to be administrators of these companies in the United States.

I thought about it, and I knew I had a job to do. And that job was to educate both the public at large, and the blind of this country, that blindness does not mean second class citizenship or inferiority. And as I thought of that responsibility and that task it seemed to me that the first person I should be considering was myself, so that I would begin to understand what my own attitudes were and if I would begin to change those, then I would have some capacity and some rightness in helping other people change theirs.

As I sat in that seminar, one of the questions which crossed my mind was, what is it that blind people can be expected to do? What are the jobs that we as blind people can perform? And it occurred to me that there is no answer to that question. You don't know and I don't know, and there is nobody in this country or in this world who can say with certainty what it is that the blind are able to do.

We can, with pride, point to the things that many blind people have done. But we don't know what blind people can do because we have not explored the limits of our capacity or of our ability. We are exploring today, you and I. We are pushing back the limits, expanding the frontiers, learning new things, going new places, planning and dreaming. It takes a great deal of resilience; it also takes faith. We can't find out unless we try to do things that we have not ever tried, unless we plan and hope to do things that most people believe we can't do.

There is a theory that every institution of civilization indeed civilizations, societies, and cultures....invest in certain products. Some of them are physical and some of them are not. If they are steel mills, they buy equipment and plants. If they are educational institutions, they assume that certain theories work and that others don't. If they are cultures, those cultures believe that a certain set of standards should apply. But because some set of rules has to apply, the civilization — both physically, mentally, and emotionally — invests in a certain set of priorities in the baggage or the equipment of our culture.

That theory goes on to say that those who have not made the investment will learn something new, will find out that there is a different twist, some different kind of thing that will make the society work better; and because that segment of the society has not invested emotionally and financially in the status quo, that segment will leap forward and pass up the established institutions of the society.

That is our task for years, decades, and centuries. The blind have been in a certain capacity in our society. Our society has invested in the status quo. It has made charitable contributions by the tens and hundreds of thousands of dollars. It has a belief and a faith that blind people fit into a certain niche in the society. Not only does it have a financial investment, but an emotional investment in keeping blind people as we are.

We have a different responsibility. And that responsibility is to show the way, to make a new direction, to pass the status quo, to recognize that the equipment that has been purchased is old — worn out — and no longer of any use and should be passed by. That is our job in The National Federation of the Blind. That is the meaning of this organization and its very purpose for being.

A few years ago there was a person working in an agency for the blind. That person was doing the job of managing programs dealing with educating blind adults. That person was a member of our organization. The administration of that agency for the blind dismissed that human being saying that there had been encouragement for the clients of the agency to join the National Federation of the Blind, saying further that clients of that agency had been encouraged to attend a convention of the National Federation of the Blind — and wasn't that awful!

Think about it a moment. What is it we find together in our conventions? Think this summer of Chicago and what there will be there. There will be 2500 blind people in one place, blind people doing all the things that you could find that blind people will do. Those who are investment bankers, brokers, scientists, farmers, in any profession where a blind person can be found, those people will be at our national convention.

There will be scholarships given, many tens of thousands of dollars worth of them.

There will be the aids and appliances available to the blind. There will be new technology. But beyond that, there will be something else....not only will there be the public officials who come to talk with the blind about the programs which affect our lives, but there will be the intangibles which are more important than them all. There will be encouragement, there will be hope, there will be jobs for the blind, there will be somebody who says "You can do it." There will be a new direction, there will be real enthusiasm for blind people to be a part. There will be the beginnings of equality for those who never thought they would have it. That is what it means to have the National Federation of the Blind.

As you consider what we have at our national convention, think about the charge that was levied against the individual; that person, it was said, was not performing properly because that person encouraged blind people to attend our conventions. Isn't it true that it is just the opposite? Isn't it true that to fail to encourage blind people to be a part of this organization is the problem which ought to have been charged if it weren't done?

Why did it happen? It is a matter for speculation. But consider the likelihoods. They didn't have security in the assistance of blind people ....in the feeling of assistance to blind people. They believed that the power they have traditionally held over the lives of individual blind people is being taken away, and the fact is, they are right. We are taking it; we intend to have it. We intend to run our own lives. We will be glad to have them as partners, but not as supervisors.

Marc Maurer, President, National Federation of the Blind, urges each member to play a part in teaching "both the public at large and the blind of this country" that blindness does not mean second class citizenship or inferiority.

Those of you who have been a part of this organization for a number of years, think back. I joined this organization in 1969, almost twenty years ago. The first convention that I attended was different from the conventions that we have today. How was it different? It was different in the spirit that we had. It was different in our expectations. It was different in the plans that we laid. It wasn't that the organization was less motivated. It wasn't that we had less commitment. But it was that we hadn't had some of the experiences which we have had in the past twenty years.

Look at the convention when you go this time. There will be blind people there doing things that we never thought twenty years ago could be done. And not only that, it will be taken for granted. Examine that thought for a moment. This is 1988. What will the convention be like in twenty years? What can we expect that hasn't happened yet?

Think of it. Dream about it. Plan for it. Work to accomplish it. Hope for the future. That's what we're here for today. That's the reason for our meeting in this room tonight. We are not there yet. We don't know yet how far we have to go. But, we are being and becoming, at the same time. Planning, hoping and dreaming and working every day to accomplish that which we have never done. But that we are sure in our hearts we can do.

Twenty years ago, a blind person in the Midwest was told not to swim in the deep end of the swimming pool. And why? Because the life guard said it would be more difficult to watch that human being. The blind person did nothing about it. He thought it was a little odd, but instead of complaining, he swam in the shallow water.

A week or so ago, a blind person boarded an airplane and was told by the flight attendant that in case of an emergency....you know the story...just stay right there until everybody else is out and we'll come and get you.

Twenty years ago, the activity that was discriminatory was almost not noticed. Twenty years later, it set off sirens and flashing lights in the mind

of the human being involved. I know, for I was involved in both incidents. I almost didn't think about the swimming pool. It didn't seem reasonable to me but I had no set of values by which to judge it. It seemed peculiar but I swam in the shallow water.

Need I tell you about my reaction to the person on the plane? I was not hostile, but if there had been an emergency that lady could have followed me out.

As we think about the work we're doing, the dreaming, the building, the hopes for accomplishment yet to be achieved, ask yourself a question: whose job it this? If we do well, who is responsible for that progress? If we fail to do well, whose fault will it be? The answer is obvious. The people who are responsible are in this room tonight. They are you and I. We have a tremendous responsibility. We have an enormous opportunity — the two go together. If we don't do the work, if we fail to plan, of we don't build, the failure is ours. The fault is ours. But that same principle is the key to success. It is a great responsibility, but it is one we know how to handle, we know how to muster. We know how to plan. We know how to come together in our organizations — state, local and national. We know how to work in the National Federation of the Blind; and it means freedom for us in the years ahead.

There is a saying — that if a person gives up freedom for even a little temporary security, he deserves neither freedom nor security. In other words, we must embrace the difficult task ahead. Not only must we do it, but we must do it with joy. One of the most difficult things to recognize is the failure of an event. And it is the hardest to report. If a thing doesn't happen, then it doesn't make news. Consequently, what doesn't happen, what we don't do, the responsibility we fail to take, will never be reported to the next generation. But we will know it. You will know it. I will know it. We will recognize it in our hearts.

Not only is it that we are sometimes the forgotten people, you and I; If you wonder about how forgotten we are think about last summer's convention. Last summer we gathered in Phoenix, Arizona. One of the convention items was a major address dealing with the airlines. Dr. Jernigan gave that address. It was one of the most powerful speeches dealing with the subject that I have ever heard. It culminated a long, long period of effort and frustration; work, labor, hoping and dreaming.

Terry Drinkwater came from CBS He was there on the convention platform. He was given a copy of the address. He is one of the principal people in the Los Angeles office of CBS He promised that the address would be covered. It wasn't. There wasn't a single word about it. Of course, afterwards, we had that material placed in THE WALL STREET JOURNAL, U.S.A. TODAY, and THE WASHINGTON POST. We got the broadest coverage that we have ever had for the airlines problems faced by the blind. But the difficulty was that those in the press did not understand the message. They didn't hear. They expected blind people to be of a different sort. They expected us to have the characteristics so frequently familiar to those who write about the blind —having a dog with exceptional intelligence, being particularly good at music, having the capacity to hear better than everybody else, being able to touch in a way that no one else can. That is the image of the press of the blind people. That is the image that they think of when they think of you and me.

What doesn't happen is often the most significant event. If a blind person does not get a job, if a blind person is prevented from going to school, if a blind person fails to participate in an activity of our society, if a blind person is not encouraged to become part of the political process, if a blind person fails to get the education or the training for an ordinary life — those will never make the news. But they will mean something exceedingly significant to those blind people. The blind people involved will be at home, alone, without hope or possibility. They will be some of the most significant events that occur in that life.

When something does happen, when there is a speech, when there is a demonstration in front of an airline counter, when a blind person insists on having the right of freedom of travel, it doesn't fit the image. The press don't print it because they don't understand it. They expect the blind person to smell better, to feel better, and to have the capacity to sing, and the capacity to touch. And if they don't get it because it doesn't fit the image, they don't know how to report it.

That means that you have a responsibility, a task to perform today, and so do I.....that is, to change the image that we have and thereby to change our place in the society in which we live, to make it so that when the matter of civil rights is concerned there are certain organizations which automatically comes to mind. The Black Caucus comes to mind; the National Organization for Women comes to mind; and, one day, we will have it be that the National Federation of the Blind will automatically come to mind. That is our job, yours and mine; we will make it happen.

It is the attitude that matters. The attitude of the public, yes; but the attitude of the blind as well. If we take principal responsibility for our own lives, if we say that those who have said that they are our keepers and our custodians will have that responsibility and that ability no more, if we say that we will take our chief responsibility ourselves and do with our lives as we please, then we will have both the pleasure of success and the great victory of real freedom.

The pessimist says that the load is bad, it is being run by those who are incompetent and the results are predictable. But the optimist says something else. The optimist says that the world is ours and we will make it a better place for the blind of the National Federation of the Blind.

If you or a friend would like to remember the National Federation of the Blind in your will, you can do so by employing the following language:

"I give, devise, and bequeath unto National Federation of the Blind, 1800 Johnson Street, Baltimore, Maryland 21230, a District of Columbia nonprofit corporation, the sum of $_____ (or "_____ percent of my net estate" or "the following stocks and bonds: _____") to be used for its worthy purposes on behalf of blind persons."

Dramatic Discoveries in Diabetes Research

Immunologists from around the world met to present their latest findings at ADA's first International Research Symposium, "The Immunology of Diabetes." The symposium was held at the Marine Biological Laboratory in Woods Hole, Massachusetts from October 27-30, 1987. Highlights were:

• An experimental drug therapy to put type I diabetes into remission was developed by scientists from the University of Florida. The new therapy uses the drug immuran, together with the steroid prednisone, to suppress the immune systems of people in the early stage of type I diabetes and to avoid the potential kidney-damaging side effects of cyclosporine treatment.

• In a study partially funded by ADA's California Affiliate, Bent Formby, Ph.D., D.Sc. and Charles M. Peterson, M.D., from the Sunsum Medical Research Foundation in Santa Barbara have found a new way to prevent diabetes in mice. First, the animals' white blood cells are incubated with cyclosporine and the immune hormone interleukin 2, then treated cells are injected back into the animals. The treatment may work because it fosters the growth of suppressor cells, which call off the attack against the pancreas. After further study, the two plan to test the treatment on children in the early stages of type I diabetes.

• Liming Hao, M.D., and Kevin Lafferty, Ph.D., of the Barbara Davis Center for Childhood Diabetes in Denver have uncovered evidence that, in diabetic mice, the pancreas itself may by responsible for provoking the immune assault on insulin-making cells that result in type I diabetes. Scientists crossed non-obese diabetic (NOD) mice with a strain of non-diabetic mice, then transplanted fetal pancreases from each of the parents strains into their offspring. The pancreases from the non-diabetic mice developed normally, while the pancreases from the NOD mice were stunted in growth and often contained cyst-like malformations. The researchers plan to study the genetics of the NOD mice for clues to the pancreatic abnormality.

(**Note:** This article appeared in the ADA Exchange Newsletter, Spring 1988 Issue, published by the American Diabetes Association Missouri Affiliate, Inc.)

Ask Dr. James

by Ronald James, M.D.

For the past 37 years, Dr. Ronald James has been an insulin dependent Type I diabetic. He is now director of the Midwest Diabetes Treatment and Education Center in Columbia, Missouri, and is the medical director of the Central Missouri Diabetic Children's Camp Inc.

Please Note: If you have any questions for Dr. James please send them to the editor. The only questions Dr. James will be able to answer are the ones used in his column.

Question 1: What are the long term harmful effects of ketones in the system and how does one get rid of ketones once they are formed?

Answer 1: Ketones are produced when one metabolizes fat as a main source of energy. This can occur under several conditions, one being that of decreased food intake such as during starvation. Another is uncontrolled, untreated diabetes where there is little insulin available and the body cannot utilize carbohydrates and proteins, thus burning fat as a source of energy. In this case large amounts of ketones are produced. There are short term harmful effects such as diabetic ketoacidosis, acute gout, etc. It would appear that there is little in the way of long term effects of ketones, such as occurs during minimal food intake. In fact during such times the central nervous system including the brain may actually switch to the consumption of ketones as its main source of energy. The problem with having elevated ketones in the diabetic, over a long period of time, is that their presence represents inadequate treatment with insulin. In such cases, not only are the ketones elevated, but other metabolic processes that have to do with the development of the chronic complications such as fat and glycoprotein metabolism will be abnormal. Therefore long term ketones due to inadequate insulin treatment may be associated with, but probably are not the direct cause of some of the chronic complications of diabetes.

One gets rid of ketones by increasing the insulin doses and hereby decreasing their production. Those that are already formed, of course, will either be metabolized or excreted in the urine.

Question 2: When my blood sugar level is 100 or below I have the

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Ask Dr. James

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Ronald James, M.D., long-term insulin dependent diabetic, directs Midwest Diabetes Treatment and Education Center, Columbia, Missouri, and is Medical Director, Central Missouri Diabetic Children's Camp Inc.

symptoms of low blood sugar. I begin to feel weak and have insulin reactions. I know a diabetic who has no problems with his blood sugars when they fall below 100. Why is this?

Answer 2: Although most people never have symptoms of low blood sugar as the blood sugar falls to levels of around 100 mg.%, there are certainly many individuals who do have such symptoms. There are several reasons why this may occur.

1. Certain individuals probably get these symptoms when the blood sugar falls from quite high levels to the normal range, that is below 100 mg.%, even though the blood sugar is not really below the lower limits of normal. This is probably because such a fall in sugar causes the same sympathetic response, that is the production of adrenalin hormone, that occurs during hypoglycemia.
2. There are several other possibilities. One is that the symptoms such as nervousness and sweating which are usually attributed to an insulin reaction may actually be due to other causes such as other diseases or emotional upsets.
3. Finally, as in the case of a patient I once saw, the blood glucose monitor was giving false high blood glucose readings. He was actually having insulin reactions when the blood glucose meter was reading 100 mg.%. When this was checked out the meter was giving incorrect readings and the blood sugar was actually less than 70 mg.% which would, in this case, account for the symptoms of hypoglycemia.

Question 3: Is proliferative diabetic retinopathy a precursor to kidney problems?

Answer 3: Not necessarily, but in most cases of diabetic kidney disease one will find the individual already has diabetic retinopathy. This is not surprising because the biochemical abnormalities of diabetes that result in the capillary changes leading to diabetic kidney disease most likely affect the capillaries in the eyes and thus cause diabetic retinopathy. Therefore in most cases of diabetic kidney disease one will find diabetic eye disease. On the other hand not all diabetics who get proliferative retinopathy get diabetic kidney problems.

Question 4: I read many articles about diabetes and have noticed that many diabetics who are experiencing retinopathy are also affected by kidney failure. I have proliferative diabetic retinopathy and for years have been taking Inderal, calcium blockers and hypertension medication for the prevention of migraine headaches. I have had diabetes for twenty-three years and want to know if the Inderal may have delayed or prevented kidney problems?

Answer 4: I do not think the Inderal has a direct effect on preventing diabetic kidney disease. However it does have an effect on maintaining normal blood pressure. Therefore in as much as it helps to keep the blood pressure down to normal, Inderal may help prevent kidney problems.

Question 5: I have hypotension and when I stand too rapidly I have what my physician calls "brown outs". What is this? Is there anything that can be done to correct the problem?

Answer 5: Since the word "brown out" is a non-medical term it may mean different things to different people. To me it means light-headedness or the feeling that one is going to faint or "black out". What can be done about this will depend, at least to some extent, on the cause of the hypotension that occurs when one stands too rapidly. There are several causes for this. One is diabetic nerve disease called neuropathy. Normally when one stands the nerves cause the muscles in the blood vessels to constrict down and increase the pressure necessary to pump blood up to the head. When one has diabetic nerve disease this may not occur and the pressure upon standing may fall quite rapidly thus causing one to have a "brown out" or "black out". A contributing factor that may be present in diabetics is arteriosclerosis or what is commonly called hardening of the arteries. Such arteries are stiff and do not constrict rapidly on standing, causing a fall in the blood pressure. Finally, medications used to treat high blood pressure frequently interfere with the normal increase in blood pressure that occurs on standing and thus result in hypotension when one stands up rapidly. In such cases one should treat the standing blood pressure rather than the sitting or lying blood pressure.

In the case of diabetic neuropathy with hypotension one can add a salt retaining drug such as Florinef which will increase the blood pressure. One may also wear support hose which exert pressure on the blood vessels in the lower extremities and help the return of blood upward thus increasing the blood pressure and blood flow to the head.

I Am A Double Diabetic

by Cheryl McCaslin

In August of this year, 1988, I will have had diabetes for 33 years. I was seven years old when first diagnosed as having diabetes mellitus — too young to understand why I was given an apple, a stick of celery, or a carrot while my friends enjoyed candy and the normal birthday treats.

I am now blind and although today it is no big deal to me, when I first began to lose vision, in 1974, it did seem like a big deal. It was then that I became acquainted with the National Federation of the Blind, and through that organization I became involved with the Diabetics Division of the NFB. As a member of this organization I have learned and continue to learn a lot about blindness and diabetes. I have enjoyed meeting a great many people with whom I have shared experiences and solutions to diabetic complications.

In June of 1987 when I began to experience a great thirst and frequent urination, I thought I had high blood sugar and went to the Dallas Medical and Surgical Clinic. I became a patient of Dr. Robert C. Dinwiddie, an internal medicine specialist with a thorough understanding of diabetes. He told me I had both diabetes mellitus and diabetes insipidus and helped me understand my particular diabetic problems. I helped him too by introducing him to *Voice of the Diabetic*, which he likes well enough that he places copies in his patients' hospital rooms and in his waiting room. He also agreed to enlighten the readers of the *Voice* about

Cheryl McCaslin, Resource Librarian, Diabetics Division National Federation of the Blind, and one of the leaders of the NFB of Texas, recently discovered that she has double diabetes.

the peculiarities involved in having both diabetes mellitus and diabetes insipidus, by writing an article explaining what they are and a little of what is known about them.

Diabetes and blindness are often nuisances but life continues to be enjoyable. There are many experiences and adventures awaiting us and it is important to keep our diabetes in control so that we can meet each new adventure head-on.

DIABETES—WITHOUT HIGH BLOOD SUGAR?

by Robert C. Dinwiddie, M.D.

When most people think of diabetes, they think of high blood sugar. Indeed most people with diabetes do have elevated blood sugars. To be more precise, however, those people have *diabetes mellitus*. This term is derived from the Greek word meloi, which means honey. This has obvious relevance to the elevated sugar levels in most diabetics' blood and urine.

There are people with diabetes, however, who have perfectly normal blood sugar at all times. These people have a less common type of diabetes called *diabetes insipidus*. Like those with diabetes mellitus, people with diabetes insipidus pass abnormally large amounts of urine, but the urine is "insipid", i.e. without taste. To state it more clearly, the urine in patients with diabetes insipidus is very dilute, because diabetes insipidus is a disease in which the urine cannot be concentrated.

In a normal person who is deprived of fluid, urine volume decreases and the urine itself becomes more concentrated. This occurs as the body attempts to retain as much fluid as possible. Normally with fluid deprivation, a hormone called vasopressin (or antidiuretic hormone) is secreted from the brain through the pituitary into the blood stream. Vasopressin acts on the kidneys to retain water leading to the production of a concentrated urine. Diabetes insipidus can result from deficiency of vasopressin or from kidney diseases in which the kidney does not respond to vasopressin. There is no abnormality of blood sugar in diabetes insipidus. As long as one ingests enough fluid to replace urinary losses, diabetes insipidus is a rather benign, if inconvenient, disease. When a person with diabetes insipidus cannot ingest enough fluid for some reason, large volumes of dilute urine continue to be passed and severe dehydration can occur.

In rare instances, diabetes mellitus and diabetes insipidus can occur in the same person. In fact, this unlikely occurrence has affected one of the staff of *Voice of the Diabetic*, Cheryl Mc-

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Airline Safety and the Idealized Passenger

Kenneth Jernigan, Executive Director, National Federation of the Blind, continues to wage war with the airlines for equal rights of blind passengers.

(Editor's Note: The following correspondence concluding with "To Be a Child — More About the Airlines" appeared in the April, 1988 *Braille Monitor*, a national magazine published by the National Federation of the Blind.)

Al Sten is one of the leaders of the National Federation of the Blind of Massachusetts. Recently he wrote to his Congressman (Brian Donnelly) and asked for help in getting the Department of Transportation to treat the blind in a nondiscriminatory manner. Congressman Donnelly sent Mr. Sten's letter to the Department of Transportation and subsequently received a reply from B. Wayne Vance, one of DOT's attorneys.

In the past DOT's letters have mostly not attempted to deal with the issues but have simply been promises to look into the matter. As you will see, the Vance letter is different. It tries to make logical arguments. *Monitor* readers must judge for themselves whether the effort is successful.

In a letter to the *Monitor* Editor Al Sten says, referring to the Vance letter which follows:

"The letter did not convince me that the airlines are right on this one, but I would like your opinion about it. As you and others have said, the airlines could handle this problem by having *no* passengers sitting next to emergency exits. Alternatively, DOT could force this practice on them. I mention this because the enclosed letter suggests that *passengers* often may have thrust on them safety-related responsibilities that in my opinion belong to*airline personnel.* If that is true, I predict that there will be some needless tragedies and some costly, very legitimate lawsuits following from them. If it's all just a ploy, if all of this verbiage about what a passenger in an exit row must be able to do means nothing because the passengers won't really be doing it, then I suspect that we have reached new levels of deceit in this war. Incidentally, Bob (Senator Dole) never doled me out a letter, not even the mass-produced, vague, word-processed kind."

Here is DOT's letter to Congressman Donnelly, along with the *Monitor* Editor's letter to Al Sten:

U.S. Department of Transportation
Washington, D.C.
January 12, 1988

The Honorable Brian Donnelly
House of Representatives
Washington, D.C.

Dear Mr. Donnelly:

Secretary of Transportation Jim Burnley has asked me to respond to your referral of correspondence from your constituent, Mr. Albert Sten. Mr. Sten, a member of the National Federation of the Blind, expressed his concern about the issue of exit row seating for blind passengers.

In implementing the Air Carrier Access Act of 1986, the Department has the explicit statutory responsibility of ensuring nondiscrimination on the basis of handicap, consistent with the safe carriage of all passengers. With respect to seating policies, the Department believes, consistent with its nondiscrimination obligations, that airlines should not single out passengers with disabilities for exclusion from exit rows. Consistent with its safety responsibilities, the Department's aviation safety agency, the Federal Aviation Administration (FAA), believes that it is important that persons who sit in exit rows can, expeditiously and without assistance, perform certain functions necessary to an emergency evacuation.

These functions include not only physically opening the exit door but also such things as ascertaining outside conditions that might create a hazard if the door is opened (e.g., a fire, a long drop to the ground). They include not only moving quickly to and through the door but also locating controls (e.g., to activate the slide if the slide does not deploy automatically) and helping other passengers find a safe path away from the aircraft. Persons seated in exit rows who cannot readily perform these functions, whether or not they have a disability, may endanger or slow an emergency evacuation.

These concerns were the basis, in the regulatory negotiation, of the Department's proposal that an airline could exclude disabled passengers from exit row seats only if the airline had and consistently enforced a policy barring from these seats all persons who could not perform the necessary functions (e.g., frail elderly persons, as well as blind or mobility-impaired persons). Under this proposal, the FAA would have promulgated a safety regulation consistent with this approach. Addressing the issue in this way was, in our view, a good-faith attempt to meet both our nondiscrimination and our safety obligations under the Air Carrier Access act. We regret that other parties not only disagreed with this proposal but also refused to discuss the matter further to determine whether there were other possible approaches consistent with our statutory responsibility. We, of course, have made no final decisions on this matter. In the very near future we intend to issue a notice of proposed rulemaking responding to this issue and the numerous others on which we gained consensus or valuable information during the regulatory negotiation process.

Mr. Sten also raises the issue of attendants for deaf-blind passengers. The Department issued an enforcement decision on this subject on November 6, 1987. The *Southwest Airlines Co. Enforcement Proceedings* determined that the carrier's policy of requiring all deaf-blind passengers to travel with attendants was discriminatory and ordered Southwest to permit deaf-blind passengers to travel unaccompanied if they are able to establish some means of communication with airline personnel.

I hope this information is helpful.

Sincerely,
B. Wayne Vance
General Counsel

Baltimore, Maryland
February 8, 1988

Dear Al:

I have read with interest the letter of January 12, 1988, from B. Wayne Vance (the Department of Transportation's General Counsel) to Congressman Brian Donnelly, and I think it is deceptive both by omission and distortion. When I was participating in the regulatory negotiation process last summer, I personally heard officials of the Flight Standards Administration of the Federal Aviation Administration say repeatedly that they felt that there was no safety question involved in blind persons' sitting in exit rows on planes. They said that if they had felt there was a safety question, they would long since have made appropriate regulations. The Flight Standards Administration is that branch of FAA which is responsible for determining questions of safety in air travel. Only when FAA attorneys began to apply pressure did the nature of the comments by Flight Standards officials change. Rather than oppose the airlines, the FAA apparently finds it easier to duck behind the safety issue.

The problem with the arguments in the Vance letter is that they are all based on one false premise — namely, that sighted persons (excluding the elderly and children) are uniformly capable and alert. The blind person (with whatever limitations and strengths he or she may possess) is compared with the ideal sighted person - a person who in most cases does not exist. Last fall when Senator Dole promised to help deal with the problem, he said that it would not occur to anyone to suggest that he should not be allowed to sit in an exit row. Yet (because of his physical handicap), he would not, he said, be able to open the exit.

When we were taking both sighted and blind people to the Baltimore airport to make a test evacuation of a World Airways plane, we had to eliminate from consideration many of the sighted that we might have chosen. One had back problems; another had foot problems; and still another had difficulties with heart and blood pressure. In the real world of everyday commercial air travel none of these people would have been excluded from the exit row. Why, then, should the blind be held to a higher standard than the sighted?

Then, there is the matter of serving drinks to passengers in the exit row seats - a matter which we keep bringing up and which both the FAA and the airlines continue to dodge. If safety were the prime consideration instead of economics, the airlines would have a policy of not serving drinks to passengers in exit rows. Repeatedly they sell liquor to such passengers to the point of making them drunk, and then they have the effrontery to talk with a straight face about their concern with safety.

In this same vein there is the matter of carry-on luggage. In the regulatory negotiation sessions the airline representatives were not willing to discuss it at all, but I have yet to hear anybody deny that the carry-on luggage which is routinely permitted is a real safety hazard—not just the phony kind of bugaboo which is raised concerning the blind. Why then do the airlines not enforce a rule against excessive carry-on luggage? The answer is simple. It is a question of economics. If one airline should prohibit such luggage, its competitors would get the upper hand, so nobody does it. Yet, we are told that blind persons cannot sit in the exit rows because they cannot open doors and move rapidly. I wonder whether a large suitcase can do the job more efficiently.

All of this does not deal with the matter of light and dark— something we have repeatedly brought to the attention of federal officials and airline

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Al Sten, an attorney and one of the leaders of the National Federation of the Blind in Massachusetts, uses his expertise to fight for the rights of the handicapped. He has asked his congressman to help him get the U.S. Department of Transportation to treat the blind in a nondiscriminatory manner.

Louis Braille and the Airlines

It has been said that fifty percent of all advertising is wasted and that if we could only know which fifty percent, we could save a lot of money. In the summer of 1987 the National Federation of the Blind took its case concerning the airlines to the public. We took full-page ads in the *Wall Street Journal*, the *Washington Post*, and *USA Today*. The question naturally arises as to whether this was a good use of resources. What precisely did we accomplish—how much name identification, how much good will, how much public enlightenment?

Of course, we will never fully know the answer, but the effect was probably far more potent and widespread than we realize. Advertising is like that. Many hundreds of letters of support came to the National Office of the Federation, and we heard nationwide discussion and comment. But what about the people who didn't write or make public utterance?

How much impact did our message have on the average person in the average community—the doctor, the minister, the farmer, and the factory worker? Did the ordinary thinking man and woman in this country become aware of what we were saying, and if so, how often was our message taken beyond the immediate problem of the airlines to a general understanding of an overall social attitude which is wrong and must be changed?

Again, we can never fully know since anything which happens that influences the social conscience forever changes the total body of public opinion, even if only to a small degree. However, we have indications, both as to impact and overall duration.

Jolene Boshart reports in the December, 1987, *News From Blind Nebraskans* on a sermon given by Dr. Otis Young at the First Plymouth Church in Lincoln. Here in part is what Dr. Young said:

Let's begin with a story. A small three-year-old child was playing in his father's workshop. It was filled with leather and tools for punching the leather, because his dad was a harnessmaker. The little boy was able to reach one of the tools. He had seen his father use the tool many times. It was a leather puncher.

Imitating his dad, the boy placed the punch on the leather and punched. Nothing happened. The little face bent lower to determine what might have gone wrong; the punch slipped; a scream brought his father rushing across the room. His son's left eye was bleeding from a deep wound.

That year was 1812, and medical science knew little about treating injuries in the human eye. In addition, France was at war, and doctors who might have been available for tending the wounded and the poor were away at battle. A few more days of anxious waiting brought bleak news: The other eye was also swollen; the infection had spread.

Soon there came a morning when the sister appeared to wake up her brother. "Why are you getting me up when it is still dark?" he asked.

"No," the sister replied. "It is a bright day, and the sun is already high." Never again would this individual see the bright sunshine.

Attitudes toward the disabled in the nineteenth century were cruel. Blind, lame, and deaf people were considered to be cursed by God and were objects of scorn. Louis, however, was surrounded by caring, challenging adults. His father was determined that the boy would be allowed to harness all of his remaining talents. When little Louis stumbled while crossing a room and his mother rushed to his aid, his father would gently hold her back. "Let him find his own way," he would say. Thus encouraged by his father, Louis soon learned his way around his own home and could be trusted on the village streets.

Another positive influence on Louis was the local priest. Father Paully saw behind those sightless eyes a brilliant and eager mind. On one of his visits to the home, Father Paully announced the wonderful news: He had persuaded the school officials to allow Louis to attend school. The boy's joy was later matched by the school officials' surprise when they discovered at the end of the first semester that the student with the highest grades was Louis.

But Louis's academic victories were short-lived. When the village schoolmaster was transferred to another part of France, local students were shifted to a neighboring district. There, the officials were adamant: no blind child would clutter up their class. A depressed Louis retreated to the loneliness of his room.

Father Paully did not give up. He discovered that there was a school for the blind in Paris, only half a day's journey away. There, Louis could attend classes with other blind children. He could be taught music. And most remarkable of all, it was rumored that the school contained books printed especially for the blind.

Unfortunately, Louis's school fell far short of its reputation. Its administration was far more interested in discipline than it was with learning. Indeed, attitudes toward the disabled were scarcely better there than they were on the streets of the city. Most disappointing of all were the books promised for the blind. They were created by simply embossing large print letters on a page so that by using one's finger, one could laboriously identify them one by one. Deciphering a single paragraph could take more than fifteen minutes. Moreover, there were only fourteen such books in existence. However, one fall Louis returned to school to discover that a new headmaster had been appointed—a man whose compassionate approach was in striking contrast to that of his predecessor. Dr. Pignier showed an interest in all of the students under his care, and paid special attention to Louis.

At a weekly assembly that fall the new headmaster presented a novel device consisting of a slate and stylus for punching holes in paper which had been devised by the French military for passing information in the noise and darkness of battle. By punching in patterns, coded messages could be put onto the paper and read by the fingers. "Of course," the headmaster cautioned, "the holes take up so much space that only the simplest messages can be sent this way. But the device makes an interesting toy. Some of you may want to play with it in the library."

Louis rushed directly to the library. What a fascinating idea! In a few minutes he had mastered the system, and then he began to try to simplify it. Each evening, after spending the necessary amount of time with his studies, Louis turned to the slate and stylus. He slept little. A nagging cough that had been with him for months became worse. When he returned home that summer, his parents were distressed by the sight of their emaciated son. Equally disturbing was the amount of time he spent with the new device, punching meaningless holes into endless pieces of paper.

Late that summer a new approach occurred to Louis. He imagined a cell of six dots, two across and three vertically. How many combinations could be made with that arrangement? He discovered that he could encode ten letters by using only the top dots of the cell. Punching out one bottom dot and repeating the original ten patterns gave him ten more letters. By using the other bottom dot, he could complete the alphabet, with codes left over for punctuation. In a tiny space he had devised patterns that could be read quickly with the fingers. His hands could race across the page as quickly as eyes could read print. And with practice he could punch out a message fast enough to take notes in class or write letters home. At age fifteen Louis Braille had devised a system for reading and writing that would transform the lives of many blind people throughout the world.

Louis Braille was instrumental in removing stumbling blocks, such as illiteracy, from the lives of blind people in his day. Today, blind people are still working to remove obstacles. And that's what the message of the National Federation of the Blind in a recent issue of the *Wall Street Journal* was all about. It reminded all of us not to put stumbling blocks in the way of the blind, and especially concerned airline travel.

Here, instead of removing stumbling blocks, it seems that new ones have been added. The gist of the message was this: To those of you who have sight, we who are blind might seem to need different treatment; but let us decide that. Too often we are not treated as individuals with the normal range of capabilities and differences. Rather, we are treated as "the handicapped"; we are treated like little children. According to the ad, the airlines have not been allowing passengers who are blind to sit in seats located in exit rows, even though these seats are allotted to children, those who are drunk, or those who are too infirm or illiterate to operate the safety windows in a competent manner. The airlines fear that in the case of emergencies people without normal sight might not be able to function in the necessary ways or that they might be trampled by other passengers trying to get out. However, those who are blind reply that they can get on and off the plane as quickly and as easily as anyone else. They further point out that if the emergency occurred at night when the cabin was dark, or the occurrence of the emergency caused a smoke-filled cabin, a blind person, unaccustomed to seeing, could be at a greater advantage than a sighted person and could be a tremendous help to others.

What we forget is that all of us are blind in certain ways. We all have our blind spots. We see vices in others, for example, before we see them in ourselves. We are frequently blind to our own prejudices.

Airline Safety

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personnel and something which they have just as repeatedly ignored. Half of the time it is dark, and sometimes (even when it is not dark) airplane lights go out and the cabin is filled with smoke. This is especially likely in cases of emergency. In such circumstances the average blind person would have a distinct advantage over the average sighted person in opening the exit and getting out of the plane. One pilot for a large airline has said under oath that for safety reasons he would prefer to have at least one blind person in an exit row on his flights in case of an accident during darkness.

The truth is that if you consider the scarcity of accidents in proportion to the number of miles which are flown and the relatively small numbers of blind people who likely would be on a given flight at a given time, the potential risk would almost be zero even if all of the claims by the airlines about the unsafeness of the blind were true. The serving of liquor to passengers, the permitting of smoking, the carry-on luggage, the undetected emotional and physical problems of the average passenger, and a hundred other things are much more real as problems than the minimal risk potentially posed by the blind. Nevertheless, the airlines persist in their phony game of "It is all a matter of safety," and the FAA bows to the pressure and seeks to take the easy way out.

In truth and in fact we are not dealing with a safety issue at all but a question of civil rights, and we simply will not be bullied and intimidated into submission. We will speak to the public and the Congress until we get results. And make no mistake about it—we *will* be heard, and we *will* be heeded.

Cordially,
Kenneth Jernigan
Executive Director
National Federation of the Blind

To Be a Child— More About the Airlines

Creston, California
November 1, 1987

Dear United Airlines:

I have sent you this letter to report an incident that should have never happened on United flight 1119 from Seattle to San Francisco, 12:30 p.m. Saturday, September 29, 1987.

My husband (sighted) and myself (blind) were scheduled to take a 3:00 p.m. United flight, same day and destination. We arrived early to the Seattle-Tacoma Airport at 12:00 noon and proceeded to check in our luggage when a United ticket checker asked what we were going to be doing for the next few hours. We answered waiting for our 3:00 p.m. flight at the airport. He then suggested that we might want to take flight 1119 at 12:30 since there were stand-by seats available on this flight. I asked if there would be any stand-by seats together, and he said probably yes. We agreed to take flight 1119. The ticket checker changed our tickets and suggested we go directly to the loading gate, which we did.

Upon boarding, I told the stewardess our seat numbers (14-A and C). She told me to go back to the middle of the plane, right side. Just as I was getting ready to sit down, the same stewardess came rushing up behind me and told me she would have to ask me to please sit somewhere else. I asked her why, and she replied, "It's a company policy not to seat blind people in exit row seats." I said that this is not the government's Department of Transportation policy. I then told her that if this was a night flight, my chances of finding the exit door would be far greater than a sighted person's since I am used to getting around in the dark.

The stewardess replied, "I have no arguments with you, but that is company policy." I said, "Let me talk to the pilot." She said I would have to talk to her supervisor, and she left.

Meanwhile I continued to stand in front of my seat, 14-A. My husband took a seat on the opposite side of the plane, one row up. The stewardess returned within five minutes. She said, "The pilot would take full responsibility for my sitting in that seat." I promptly got ready to sit down when the same stewardess took my white cane from me and quickly placed it in an overhead cabinet two rows ahead of me.

I said, "Can I please have my cane back? Putting my cane up there is like putting my eyeballs up there." She then took my cane down while I explained to her that it is telescopic and would fold up quite small while she watched. I also told her I would even wear it on my hand with its strap if she was concerned with it being loose upon takeoff.

She did not say a word and left only to return a few minutes later with another stewardess telling me, "You are going to have to prove to me that you can at least reach for the emergency exit door handle," which I did promptly.

At this point I was really getting tired of being treated like a twelve-year-old child. Having to prove anything to two strangers is absurd! The harassment did not stop there. By this time my husband called over to me, "Now will you come over here and sit?"

I said, "Are you kidding, after having to fight for my seat?" I was not moving, so he joined me in seat 14-A, and I sat in seat 14-B. No other person sat in seat 14-C.

The stewardess proceeded to explain to all passengers the safety rules and air bag use. I listened and understood, but that wasn't enough for our stewardess. When the explanation was finished, our stewardess and another walked to my seat, and with an air bag in hand told me to reach for the air bag held over my head, which I did. Then they told me to show them that I could find the button to release the air bag, which I did. I even offered to show them how to put on the mask if they wanted me to. They did not, and off they went.

My husband told me that all during our one-hour and twenty-minute flight I received ugly sneers from the stewardesses. This had been my third flight in one week, and only on flight 1119 was I intimidated, degraded, and embarrassed in front of a plane full of people. Often during this flight I felt like telling the stewardess: "I am blind, not deaf, not senile, or childish, so please don't treat me as such." I am a thirty-six-year-old woman with an A.A. degree in data processing as a programmer. I have worked as a cashier, department store manager (indoor patio department), clerk, and housekeeper for many years until January, 1987, when my blindness required me to stop driving. I have been a 4-H leader for four years and worked with many students and teachers on various school projects including serving as president of our school Improvement program for two years. I seriously doubt that many people would "Fly United" if they had to undergo the harassment I did on this flight!

I have enclosed some important information on blind people and would stress to your personnel training officer that they take a few minutes to go over it with each United employee. Half the problem with blindness is teaching people to understand that only a small percentage of all blind people see nothing at all, and the rest of us can see some colors and movement and are, indeed, still blind.

Sincerely,
Kathy French

Cells to Block Diabetes Found

by Jamie Talan
(c) 1988, Newsday

Researchers have isolated a group of white blood cells in animals that offer protection against diabetes, a finding that may one day lead to a treatment in humans.

About 1 million Americans suffer from insulin-dependent, or Type I, diabetes, an auto-immune disease that results from selective destruction of Insulin-producing beta cells in the pancreas.

Working with groups of rats that were prone to diabetes, Dale L. Greiner, a pathologist at the University of Connecticut Health Center, discovered that the animals lacked about 10 percent of a normal lymphocyte, or white blood cell, population. Animals resistant to the disease had normal amounts of these cells.

When Greiner and colleagues from the university of Massachusetts Medical School placed the so-called RT-6 cells in diabetes-prone rats — animals bred to develop diabetes half the time — they found that the chance of developing diabetes was eliminated. If the cells were removed from diabetes-resistant rats, their chance of developing diabetes rose to 50 percent. Only 1 percent of the diabetes-resistant rats usually develop the disease.

The study was reported recently in the Journal of Experimental Medicine. "It is very exciting," Greiner said. The researchers are now searching for a similar cell population in humans. Indeed, if a population of immune cells can be isolated in humans, Greiner said, the replacement of the missing cells would, theoretically at least, block the condition from developing.

He suspects that the RT-6 cells unleash a special substance, which has yet to be identified. In turn, the substance prevents beta cells from being destroyed, at least in the rat.

The University of Massachusetts researchers have experimentally tried to transfuse white blood cells from a healthy twin rat to his diabetic sibling. The results have not been successful, because, according to Greiner, the beta cells have already been destroyed.

The Connecticut researcher suspects that identification of a similar white-blood-cell population in humans could aid in islet-cell transplantation, a technique that until now has not been successful.

Basically, surgeons take insulin-producing cells —contained in sacs in the pancreas — and transplant them into patients with advanced diabetes. The problem is that the immune response is not altered by the procedure, and the transplanted islet cells are quickly destroyed. Greiner said it may be possible to administer the protective substance and then transplant the islet cells. The technique, he admits, is years off.

According to Dr. Aldo Rossini, head of the Massachusetts research team, diabetes cannot be explained by genetics alone. "It's like tumblers on a lock. When they are all set in the right position, the key goes in. Genetics might make people susceptible, but I don't think that is enough." He said they will continue searching until the key fits.

(Note: This article appeared in the *Rapid City Journal,* Rapid City, SD March 24, 1988.)

Wham! Crash! — Ouch!! Get an Ambulance!!

by Nick Versteeg

Fifteen years ago on a nice sunny summer day, I was riding a motorcycle down a quiet Minnesota country road. It was a typical summer morning, the air was fresh, birds were busy with their morning activities,-a few deer crossed the road in front of me. What a day! The first day of my vacation in northern Minnesota. I rode for several hours, enjoyed a sack lunch in the woods, and started back to town where I knew my wife and her relatives were getting ready to go out to eat dinner. It started to pour cats and dogs (as we say in Minnesota). I pulled off the road under some tall pine trees realizing that riding a motorcycle on wet paved road is dangerous. In a short half hour the storm ended so I slowly started down the road again with the lights on for better visibility in the still grey clouded atmosphere. Soon the sun came out to dry the roads and to warm me. The air was fresh; it was truly an exhilarating Minnesota day! I was within 3 miles of home, I knew the relatives were waiting for me to go to dinner; but better a little late than to have rushed home recklessly; they would understand. What's this!?! A truck is turning left, right in front of me?!?! Oh No!!? I swerved sharply to skid out of the truck's path and laid the motorcycle down on me. I was pinned between the bike and the pavement. Wham! Crash! The truck hit the bike and my left side. Ouch!! Get an ambulance!! I passed out.

I opened my eyes, and the bright lights of the emergency room blurred my vision. I could see my wife's pretty smile, and the sound of her voice broke the silent world I was in. So starts the first day of my vacation and the next three years of my life. The small town doctor said, "Son, you have a broken arm. The worst I have ever seen - so many little pieces all over. We cannot

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Wham! Crash!

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do anything for you here. You will need a specialist available only in the large cities." We selected to go to Duluth because we had lived there 4 years ago and had a few friends there. My wife packed up the pickup, the camper and the trailer with the two cycles in it. She picked me up at the hospital. I was groggy and in pain; together we began the four hour drive to Duluth.

Surgery was performed on my arm; two plates were inserted and many pieces of bone fragments were put back in place. Student doctors told me in the enthusiasm of their new profession that the doctor had done a fantastic, perhaps an impossible, job of reconstruction. A specialist was brought in to regulate the insulin and diet during my stay in Duluth. I had been a diabetic since I was six but never had experienced such a trauma to the entire body system as this.

At the end of the second week they allowed me to be transported home where I could find a doctor to supervise the healing. The yellow pages revealed several doctors. I made an appointment with one.

The new doctor removed the cast because he said he did not want to be liable for another doctor's work. He also took x-rays and said all looked good except for a small red area where the stitches were. He gave me some antibiotic, and I went home confident.

A week later the cast was wet on the INSIDE! The doctor cut a hole in the cast to check it. My spirits dropped when I saw the bloody gauze covering my arm and beneath that a sea of puss — enough to choke me even now as I recall that horrible day. The doctor and his staff spent a great deal of time cleaning the infected area and removing the infected liquids before putting on a new cast with a gauze window for keeping the area disinfected.

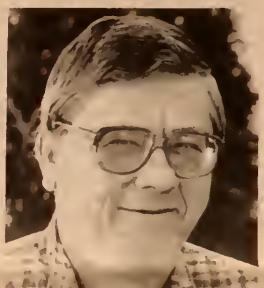
As I look back now I realize that I should have found a diabetic specialist, but at the time, it never crossed my mind. I had just moved and had not yet found a personal doctor.

In the days that followed I was sick and sleepy. The couch felt good to me; I could sleep forever. I tried to regulate myself, but I never got it right. I ignored the pleas of family and friends to find other medical help. I always said "what can they do?" What a fool I was.

After a year had elapsed with only minor progress I had surgery to remove a piece of floating bone that had not healed to the main pieces.

Even though the infection had stopped the bone did not seem to be healing. I was attached to the couch. I was irritable. I only wanted to sleep. The diabetes could not be controlled and I was too far gone to care anymore. I was able to keep up with my job because everyone at work treated me as "Oh poor Nick with the broken arm." I got by.

My wife realized that the problem was more than just the arm and finally applied enough verbal pressure to get me to do something. Her demands made me realize that the doctor I had been going to was not for me. A work acquaintance showed me an orthopedic clinic he recommended. I had had no idea that this clinic existed. I went in and told the receptionist my problem and, through the window, showed her my deformed arm. I started crying as I thought there was no longer any hope for my arm. I had waited too long! I was at the lowest point of my life. I was taken to a room and shortly a young doctor came in. He looked at my arm and said he did not like to take other doctors' patients because of the liability BUT IF HE DID TAKE ME I HAD TO SEE AN INTERNIST as well. I agreed. The cast was removed, the arm x-rayed and another cast put on. He knew I really needed help! In time, the internist got my diabetes under control and I started to feel better. I was finally able to work full time exuberantly. My whole outlook on life had improved. The cast was now only a minor impediment to my daily activities.



Nick Versteeg was diagnosed an insulin dependent diabetic when he was six years old, but he never allowed diabetes to slow him down. A terrifying accident and the long and painful recovery that followed taught him the importance of having an internist with a thorough understanding of diabetes.

But two and a half years after the accident, my arm was still not healed; in fact not much healing had occurred. The orthopedic decided the plates needed to be removed to encourage healing. During surgery my shoulder was rotated because it had been immobile for much too long. Did it ever hurt when I woke up! I had to go to therapy four times a week to keep that poor sore shoulder mobile. A few months later with still no improvement, the doctor said the next thing to try would be a bone graft from my hip. That may not work, it may cause infection and difficulty healing in the hip as well.

"But Doc? What if the bone graft does not work? What then?"

"Nick, keep your diabetes controlled, we will worry about the surgery. If you are religious you could pray."

I was not, but I did anyway. Amputation would be the final step.

The cast was removed to allow for a good cleaning of old skin. It was important to make sure the area was completely sterile with nothing loose to cause problems. My arm was a noodle as I scrubbed and scrubbed 2½ years of old tissue away. I looked at the arm. It seemed to be a strange apparatus. I had not seen it for 2½ years and it may not be a part of my body in the future.

That weekend as I scrubbed my arm, it felt different to me.

It was Sunday and I was driving by a church. The sun was shining. I felt great! I waved and yelled good morning to a stranger walking to church. What a day that was! Again that night, as I was scrubbing, I played around with my arm. It *did* feel different! The next day I was to check into the hospital to be prepared for the bone graft. I called the doctor to explain that my arm felt different. He was doubtful and suggested that I check in and before surgery they would check it. The x-rays were taken that evening and when the doctor came into the hospital room with the x-rays in his hand, his face was changed.

"Nick," he said "I am the happiest man! Your arm is healing! There is no need for surgery." "Yahoo!!" I gave a yell that could be heard throughout the hospital.

My arm is crooked. The bones are fused together making it slightly immobile. There is a deep hole where the infection had been, and heavy scar tissue disfigures the top, but we have been together like this now for 12 years and we get along just fine. It does not prohibit me from normal activities — merely a slight adjustment must be made in how I do things. If any of the fine doctors read this, I extend to you my thanks. I give a special thanks to the internist who kicked my butt and set me straight on my diabetes control. To my diabetic friends whom I have not met I stress that it is critical to keep the diabetes regulated. Keep it controlled so you can return to these pages. In a later issue I would like to share with you "How Diabetes Built a Farm." Take Care —Nick

Diabetics Should Lose Weight, Avoid Diet Fads

by Gina Kolata

A consensus panel concludes that weight loss is the only proven treatment for noninsulin-dependent diabetics and describes various diet and exercise fads as being of little use

If ever there were a disease that is caused by life-styles, it is noninsulin-dependent diabetes mellitus (NIDDM). By far the predominant form of diabetes, it is a disease almost exclusively of overweight, sedentary adults. It accounts for 90% of all diabetes in this country and is a leading cause of death as well as the major reason for new cases of blindness, kidney failure, and limb amputation.

Last month, the National Institutes of Health convened a consensus panel to review current data on NIDDM and to recommend ways to prevent and treat the disease. In particular, the panel considered the roles of diet and exercise in NIDDM. During the course of the 3-day meeting, the panel heard and accepted data that contradict many commonly held beliefs about diet and exercise.

For example, it may not be true that exercise increases the metabolic rate for hours to come. And exercise is not necessarily a particularly potent adjunct to a low-calorie diet. People frequently compensate for a bout of exercise by eating more or by moving less for the rest of the day.

The diet picture is just as clouded. The problem, said panel chairman George Cahill of Howard Hughes Medical Institute in Bethesda, Maryland, is that "we have got to be so careful that fads don't get to be dictums before their efficacy is known." For example, researchers at the meeting questioned whether the current fiber fad is supported by good clinical evidence and cast doubt on the utility of using the glycemic index, which shows how different foods affect blood sugar levels, to plan a diabetic diet.

The diet and exercise questions are paramount in NIDDM because it is a disease of obesity. Excess body fat alters glucose metabolism even in persons who are not diabetic. What happens is that, for unknown reasons, obese persons become insulin-resistant. If the obese person is not diabetic, the pancreas compensates by producing more insulin; therefore, blood glucose remains within the normal range. But, in persons with NIDDM, the pancreas does not make more insulin and, as a consequence, cells do not take up glucose, or take up very little. In addition, the liver produces excess glucose, thus exacerbating the problem. The result is high concentrations of blood glucose, or diabetes.

Just as obesity leads to insulin resistance, so weight loss reverses this condition. When persons with NIDDM lose weight, they frequently are no longer diabetic.

For this reason, said Cahill, "diet is the hallmark" of diabetes therapy. Overweight diabetics should lose weight, and persons who know they have a family history of diabetes should avoid becoming overweight in the first place.

Gerald Reaven of Stanford University cautions that a negative family history by no means indicates that a person is not at risk. "Family history is a joke," he remarks, because as many as half of all persons with NIDDM are undiagnosed. It is easy to ignore diabetes since, in many cases, there are no warning signs and it is perfectly possible that family members had diabetes and did not know it.

Reaven—and the consensus panel—

advise all overweight adults to consider themselves at risk for diabetes and to have their blood glucose levels tested. They also note that a subgroup of the obese is particularly at risk. People who have what Per Bjorntorp of the University of Goteborg in Sweden calls "apple-shaped," as opposed to "pear-shaped," bodies are particularly prone to develop NIDDM because abdominal fat, which predominates in the apple-shaped individuals, is more metabolically active and individuals with large deposits of abdominal fat have more free fatty acids in their blood. This condition may lead to increased glucose production by the liver.

Of course, it is one thing to advise people to lose weight and quite another to have them do it. "The long-term effectiveness of any diet therapy is terrible and will remain terrible until we learn why people become obese," Clifton Bogardus of the National Institute of Diabetes and Digestive and Kidney Diseases in Phoenix, Arizona, told the panel.

The panel wrote in its consensus statement, "While acknowledging the poor prognosis for weight maintenance, the panel recommends that most obese patients with NIDDM be maintained on diets moderately restricted in calories." It further suggested behavioral therapy, group support, and nutrition counseling to help patients lose weight and keep it off.

The next question is what sort of foods are best for diabetics. The American Diabetes Association recommends a diet that is high in complex carbohydrates and rich in fiber. But, says Aaron Vinik of the University of Michigan Medical Center, "the dogma is now coming under closer scrutiny and remains a controversial issue." For one, he notes, "these diets are substantially different from the average American diet" and their safety and efficacy are not well established. The existing studies are difficult to compare because they use different kinds of fiber, and some use combinations of soluble and insoluble fibers whose effects, Vinik suggests, "may counteract each other." In addition, researchers frequently change other components of the diet in addition to fiber content, and different researchers use different criteria to assess the effects of high-fiber diets.

Finally, the high-fiber diets may have some adverse consequences. "There is more and more evidence that diabetics are prone to bone thinning," says Vinik. There are some hints that persons with digestive problems—and that includes 80% of all NIDDM patients over age 55—may not absorb calcium and other mineral properly when they eat high-fiber diets.

The consensus panel agreed with Vinik. The results of fiber studies are inconclusive, it said, and the diets may be unpalatable and not even safe for all diabetics. Robert Silverman of the National Institute of Diabetes and Digestive and Kidney Diseases, who chaired the planning committee for the consensus conference, comments, "We're not saying that fiber is bad. We're saying that, frankly, from the data we've seen, we're not impressed."

The panel also looked at the glycemic index as a way of planning diabetic diets. David Jenkins of the University of Toronto and others find that certain foods, including pasta and beans, produce a gradual increase in blood sugar and insulin whereas other foods, including potatoes, produce a more rapid rise. Proponents of the glycemic index suggest that diabetics emphasize the slow-release foods.

But the panel disagreed. "We are withholding judgment," says Silverman. "A lot of ink has been spent on the glycemic index, and it may turn out to be interesting, once we figure out what the meaning is." The problem is to determine how combinations of foods affect blood sugar as well as how a person's race, sex, age, body weight, and even the time of day he eats the food affect blood sugar responses.

Cahill stresses how much work needs to be done on the glycemic index before it becomes practical. "One of the questions we asked during the conference was, How reproducible is the index in a single individual? No one's done that experiment. They just look at averages across groups. For a given individual, it may be meaningless or it may be very important." For now, Cahill says, his personal opinion is that the glycemic index is "a bucket of fluff."

When it came to the question of exercise, the consensus panel concluded that "the risk-benefit ratio of exercise in NIDDM remains to be defined." But it recommended moderate exercise because of evidence that exercise may help prevent heart disease.

Exercise has been advocated as an aid to weight loss and as a way to normalize blood glucose levels. Both of these claims were disputed by speakers at the conference.

F. Xavier Pi-Sunyer of Columbia University, for example, reported that when obese people entered an exercise program, they moved less for the rest of the day, negating the extra calories they burned exercising. This occurred even when the people exercised enough to burn 25% of their normal daily calories. Afterwards, they would lie down and not move much, Pi-Sunyer said. In addition, he said, "there is no substantial effect of exercise on metabolic rate. This is touted as a great benefit of exercise and it just does not occur." Pi-Sunyer concluded that he is "relatively pessimistic" that the amounts of exercise that are reasonable for diabetics can have much effect on weight loss.

Several of the meeting participants, including Neil Ruderman of Boston University Medical Center, reported that diabetics consistently are less physically fit than non-diabetics as measured by their maximum oxygen consumption. And diabetics, after exercising, have an increased insulin sensitivity. This might indicate that exercise could alleviate diabetes, but Ruderman and others find that the effects of exercise are short-lived, disappearing in as few as 72 hours. So if exercise is to benefit diabetics at all, they must exercise regularly. But, like weight control, regular exercise is easier said than done.

The panel concluded, says Cahill, that "exercise in general should be demystified." So, in the end, the panel stressed weight loss as the one clearly beneficial treatment for NIDDM and the avoidance of obesity as the one clear way to prevent the disease. But, unfortunately, of all the health advice, weight loss is among the most difficult advice to follow.

Young Woman Questions Whether to Marry Diabetic

Dear Ann Landers: I am a healthy young woman who is in love with a 25-year-old diabetic. "Jim" has had diabetes since he was very young. He looks terrific and gives himself insulin shots every day.

We are in love and want to be married but I'm having trouble with my mother. She is very fond of Jim but is concerned that his illness makes him a poor candidate for marriage. She has read up on the subject and is afraid that I might end up being a nurse to a sick man.

My question, Miss Landers, is this: Should I rule Jim out as a future husband because of what could happen to him later? Please give me some level-headed advice. I can't be objective about this. Sign my letter — In Love with a Diabetic, New Orleans

Dear In Love: I asked my friend, Eileen Gelick, immediate past president of Juvenile Diabetes Foundation International, to respond to your letter. Here is what she had to say:

Dear I.L.: Many medical experts around the world would encourage you to follow your heart.

While you are correct that diabetes is a serious chronic disease, and possible complications such as heart attack, kidney failure and even blindness are cause for concern, America's 11 million diabetics now have more reasons to be optimistic than ever before.

Except for the discovery of insulin 66 years ago, more progress toward a cure and better treatment has been made in the past 17 years than in the previous 35 centuries, thanks to a significant degree to the work of the National Institutes of Health and the Juvenile Diabetes Foundation.

Newer methods of controlling blood sugar levels, and easy-to-use blood glucose monitoring equipment, give us reason to believe that many of the complications may be circumvented. Research is moving ahead at a record pace.

You should keep in mind, however, that diabetes is a disease that impacts on the entire family.

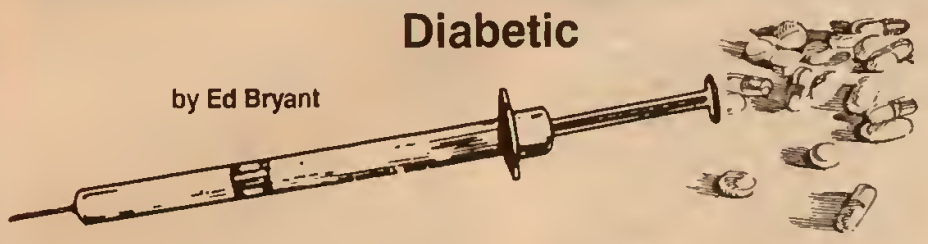
Be prepared to help your friend/spouse monitor his diabetes and stick with a diet and exercise program that will help him stay well. Also, keep up with the literature so you can help Jim follow the regimen, and start planning the wedding. Good luck!

Dear Eileen: Thanks for the assist. I knew you would do a super job and you did. Millions of diabetics and their families will bless you.

(Note: This Ann Landers question appeared on March 8, 1988 in newspapers across the land.)

Successful Methods and Ideas from a Blind Diabetic

by Ed Bryant



During the 10 or 11 years that I have been blind I have developed a number of homemade devices and methods that allow me to independently manage my diabetic needs. A major aim of the Diabetics Division of the NFB is to encourage and assist blind diabetics to be independent. I find blindness to be a nuisance that challenges the imagination. Every day I seek new ideas to overcome the obstacles placed in my life by blindness. No doubt other blind people are challenged in the same way.

I would like to begin a regular column in the *Voice* whereby we can all benefit from the ideas, the trials, the errors, and the successes of our fellow blind diabetics. To start the ball rolling, below are some of my alternative techniques for handling medication.

When I open a new vial of insulin, I carefully calculate how many days that particular vial will last. For example, I use a total of 20 units of regular insulin daily. If I were to divide the 1000 units (10 cc) of a new insulin vial by the 20 units I use daily, one vial would last me 50 days. But, I must be careful that in drawing out the insulin I do not inadvertently draw out air. So, as a safeguard, I assume that the new vial only contains 900 units (9 cc) and will only last me 45 days, instead of 50. As long as there are at least 60 units of insulin in the vial and the diabetic is careful about keeping the vial in a straight up and down position while drawing out insulin, there is no danger of drawing out air. Careful blind diabetics can get a little more for their money and increase the number of days a vial can be used.

High-Carb Diets Questioned

The American Diabetes Association and the American Heart Association recommend that diabetics, like the rest of the population, consume no more than 30% of their calories as fat. Most Americans now consume 40% of their calories as fat and, according to the heart association, the only way to consume 30% fat is to substitute vegetable meals for some that now contain meat.

But Gerald Reaven of Stanford University School of Medicine questions whether diabetics and hypertensives, who share many of the same biochemical abnormalities, should reduce their fat calories to less than 40%. For these populations, Reaven argues, very low fat diets can actually increase the risk of heart disease.

Reaven presented his hypothesis at a recent consensus conference at the National Institutes of Health that met to assess the data on the prevention and treatment of diabetes. The panel did not ignore Reaven. It suggested that any diabetic who goes on a high-carbohydrate diet should be tested soon after starting the diet to be sure the diet does not adversely affect the blood lipids. "I think there's a lot to Reaven's argument," says Robert Silverman of the National Institute of Diabetes and Digestive and Kidney Diseases and a member of the planning committee for the consensus meeting. "His data speak for themselves." George Cahill of Howard Hughes Medical Institute, who was chairman of the consensus panel, thought Reaven's comments were "very appropriate. There are fads in nutrition and we [the panel] feel the high carbohydrate one has gone a little too far."

The problem, according to Reaven, is that the low-fat diets that are currently in fashion are also high-carbohydrate diets—calories from fat are replaced by calories from carbohydrates. Reaven says, "anyone who consumes more carbohydrates has to dispose of the load by secreting more insulin." A slim, physically fit person is already very sensitive to insulin and secretes only a small amount in response to carbohydrates. But diabetics—and hypertensives—secrete much more because their tissues are relatively insensitive to insulin. (Reaven and others find that persons with high blood pressure have higher levels of blood glucose and insulin than persons whose blood pressure is normal.) High concentrations of insulin are associated with an increased risk of heart disease.

There is already a threefold variation in insulin sensitivity among normal, apparently healthy individuals, Reaven points out. Rresearchers studying large populations in Paris, Australia, and Helsinki have shown, in prospective studies of nondiabetic people, that the 20% who secrete the most insulin in response to carbohydrates are at the highest risk of heart disease.

There are two explanations that might account for this association between insulin and heart disease. First, there is a good correlation between hyperinsulinemia and very low density lipoproteins, or VLDL, synthesis by the liver. Insulin, Reaven notes, activates liver enzyme systems that favor VLDL synthesis. High VLDL levels are a risk factor for heart disease.

Second, there is a good correlation between high insulin levels and low levels of high-density lipoproteins, which protect against heart disease. The biochemical reasons for this are unknown, but it is, says Reaven, a consistent finding.

Reaven emphasizes that a high-carbohydrate, low-fat diet may only be risky for diabetics and hypertensives. But he also says that his advice that diabetics and hypertensives get 40% of their calories from fats does not mean that they should consume saturated fats.

But, for now, Reaven's advice to diabetics and hypertensives places nutritionists in a bind. "High protein levels can be bad for the kidneys. High fat is bad for your heart. Now Reaven is saying not to eat high carbohydrates. We have to eat something," says Silverman. Although he thinks Reaven's argument is justified, he says, "sometimes we wish it would go away because nobody knows how to deal with it." ■ G.K.

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INSULIN ACTION

(Editor's Note: The following chart is from the Midwest Diabetes Treatment and Education Center in Columbia, MO.)

Type of Insulin	(Mfg.)	Source	Onset	Peak	Effective Duration
RAPID-ACTING					
Regular					
Regular Insulin	Squibb Novo	Pork	(15-30 min)	2-4 hrs.	6 - 8
Velosulin	Nordisk	Pork (purified)	(15-30 min)	2-4 hrs.	6 - 8
Actrapid	Squibb Novo	Pork (purified)		2½-5	6 +
Ilentin II R	Lilly	Pork (purified)		2-4 hrs.	6 - 8
Ilentin II R	Lilly	Beef (purified)		2-4	6 - 8
Iletin I R	Lilly	Pork & Beef		2-4	6 - 8
Novalin R	Squibb Novo	Pork derived Semi-synthetic		2-4	6 - 8
Humulin R	Lilly	DNA & Bio-synthetic		2-3	6 - 8
Semilente					
Semilente	Squibb Novo	Beef	(1 hour)	2-4 +	6 - 8 +
Semitard	Squibb Novo	Pork (purified)		2-4	6 - 8 +
Ilentin I S	Lilly	Pork & Beef		2-4 +	6 - 8 +
INTERMEDIATE ACTING					
NPH	Lilly		2 ±	8 ± 2 hrs	12 - 14
Protophane	Squibb Novo	Pork(purified)		8 ± hrs	12 - 14
Iletin II N	Lilly	Pork (purified)		8 ± 2 hrs	12 - 14
Insulatard	Nordisk	Pork (purified)		4-12	12 - 14
Iletin I N	Lilly	Pork & Beet			12 - 14
Novalin N	Squibb Novo	Pork derived Semi-synthetic			12 - 14
Humulin N	Lilly	DNA&Bio-synthetic	Intermediate	6-8	10 - 12
Lente					
Lente	Squibb Novo	Pork	8 ± 2 hrs		14 - 16
Monotard	Squibb Novo	Pork (purified)			14 - 16
Iletin II L	Lilly	Pork (purified)			14 - 16
Iletin I L	Lilly	Pork & Beef			14 - 16
Novalin L	Squibb Novo	Pork derived semi-synthetic			14 - 16
Mixtard					
Mixtard	Nordisk	Pork (purified)	30%Regular, 70% NPH		
LONG-ACTING					
Ultralente					
Ultralente	Squibb Novo	Beef	8 ± hours	18 ±	24 - 36
Ultratard	Squibb Novo	Beef			24 - 36
Iletin I U	Lilly	Pork & Beef			24 -36
PZI					
Iletin II P	Lilly	Pork		18 ±	36 - 72
Iletin II P	Lilly	Beef		18 ±	36 - 72
Iletin I P	Lilly	Pork & Beef		18 ±	36 - 72

THE DIABETES CORNER

by Barry Friedman

Oh, to be a diabetic rat! Animals can be cured of their disease; as yet, humans can't. Someday science will be successful with us, too. At least there is hope. Maybe we will be converted into rodents.

Neither magic pills, nor incantations, nor potent potions exist for the diabetic. Maybe transplants will help. I'm not referring to pancreas transplants. They are complicated to perform, often fail and, like kidney grafts, the supply is limited. Islet cell transplants are probably most promising. To refresh your memory, the Islets of Langerhans in the pancreas contain beta cells which manufacture insulin. In Type I (Insulin Dependent Diabetes Mellitus) the beta cells have been destroyed by an autoimmune process. We have rejected part of ourselves. When kidneys fail, they are replaced with kidneys. Why not replace vanished beta cells with new ones?

Well, there are reasons that make application of this idea difficult. Type I diabetics have already destroyed their own beta cells and are ready to reject a new set. The same reasoning explains the rarity of recurrence of measles. After a first bout with measles, the body's immune system is alert to a reinfection and fights it fast. O.K. There are antirejection drugs. There are also privileged sites in the body which can accommodate foreign tissue without rejection. Sinus cavities and testes (ovaries too, by extension) are examples of such locations. Another idea —the transplanted islets can be enclosed in membranes which have pores of a size to allow small chemical molecules like insulin and sugar to pass through but would hold back large molecules including antibodies or white blood cells involved in the immune response. Encapsulated islets could be injected into muscles or blood streams or abdominal cavities. They probably would not last forever since the body might deposit fibrous tissue around the capsule in an attempt to wall out the foreign intruder. That would make transport of chemicals across the membranes impossible. If the method of transplanting was just an injection, retransplanting would be easy.

The idea of repeated islet grafts brings up the question of source of supply. Ideally, other species could be used. If the aforementioned techniques prevent rejection due to immunity, islets from other animals could be used. Think about the fact that we now use beef and pork insulin. If we are limited to human cells, the supply might come from fetuses. Aborted material is available but not in great quantity.

Assuming that there is a great heap of pancreases, the next step is to isolate the islet cells. Sounds easy but isn't. Don't be discouraged. Two reports of successful transplantation are in the segment of medical literature reviewed for this column.

O'Shea and Sun, working in Canada, encapsulated rat islets and implanted them intraperitoneally (in the abdominal cavity) of diabetic mice. No immunosuppression was given and the diabetes reversed within three days. Normal blood glucose levels were maintained for up to 144 days. Nonencapsulated islets functioned for less than 14 days. More than 80 percent of the grafts were surviving at 50 days. Failure of a first graft could be followed successfully by a second graft. There were only one or two islets in each capsule and 1,000 of these were inserted into the abdomen through a small slit. When empty capsules were put in, they had no effect. The transplanted islet cell holders were overgrown, probably accounting for their eventual failure. The team of O'Shea and Sun did more work on their membrane components. It is important to note that not only was this technique successful, but that it crossed species lines.

Not quite as successful and different in approach was the work of J.J. Altman in France. He used human insulinomas (insulin secreting tumors) as cellular insulin sources. Half of the diabetic rats which received little closed-end plastic tubes containing insulinoma cells in their peritoneums became normoglycemic and remained that way for a year. The other experimental animals had their diabetes corrected for a short period and survived longer than untreated diabetic rats. An advantage to Altman's approach is the availability of a large supply of insulinoma cells which can also be grown in culture. A disadvantage is the potential lack of regulation of blood sugar. Normally, Alpha cells, which produce glucagon, a hormone having the opposite effect of insulin (it raises blood sugar), interact with beta cells to achieve normal glucose levels. Are there alpha cells in insulinomas? Are their alpha cells present in the pancreases of diabetic animals?

Aware of the teamwork necessary to regulate blood sugar, Altman reported no hypoglycemia in his experimental animals. Furthermore, three of the five insulinomas used responded to step changes in their glucose environment. In other words, they secreted more insulin when more glucose was present. It occurs to me that this kind of activity could be tested for before using a source of cells for transplantation. Side-effects can be as troublesome as the original disease but intestinal adhesions, abcess formation, or complete fibrotic overgrowth were rare.

Oh, to be a diabetic rat! As diabetic humans many of us currently spend a great deal of time (they say it takes only a few minutes for each test but meter care, preparation, recording and clean-up require more than that), money (each strip is about $.50), and energy, (the mental distress, however slight, from making oneself bleed) on self monitoring of blood glucose. Current medical opinion holds that adjusting insulin dose after checking blood sugar will avoid, slow, or reverse diabetic complications. More than opinion is needed to justify the amount of effort patients put into a procedure. A major study is being undertaken in the U.S. and Canada to prove the truth of the medical opinion. The first or feasibility stage of the project has been finished, showing that a long term (up to 10 years) clinical study is possible. Fourteen hundred Type I diabetics are being recruited for the study. On a random basis, half of them will be assigned to conventional treatment of one or two insulin injections per day and the other half will receive intensified treatment by multiple injections or insulin pump therapy. Retinopathy is the complication to be observed. People will be watched for development of retinopathy or for its progession if it had begun before the start of the study. Appearance or progression of kidney disease will also be recorded. Both therapies will try to avoid causing hypoglycemic episodes. It's nice to know experimenters have the interests and well-being of patients in mind. If the health of either group is perceived to be endangered, the study will be stopped. Remember these initials: DCCT. They stand for the Diabetic Control and Complications Trial. It's important and you'll probably hear a lot about it in the next decade.

We hear of the long term dangers of high blood sugar but low blood sugar is often treated rather off handedly by those who don't experience it. It is potentially dangerous and can lead to convulsions and death. Perception of hypoglycemia is a problem. Of 79 adult IDDMs, 70.9 percent thought they knew when their sugar was low. They were wrong. People who frequently monitored their sugar levels were more apt to do so to verify low glucose before treating than other diabetics. What are the symptoms of hypoglycemia? Adrenergic symptoms (sweating, trembling, and weakness) were listed by 31 percent as their only signals, 20 percent listed neuroglycopenic symptoms (confusion or disorientation and passing out), and 39 percent listed both. Patients should be educated to learn their individual pattern of signals and to realize that they may misinterpret their bodies. In this adult group and in a group of diabetic adolescents, the effect of regular monitoring of blood sugar on perception of blood sugar levels was checked. Too bad. We don't learn. Even monitoring experience leading to exact knowledge of sugar levels didn't enable diabetics to make accurate estimates. Back to the meters!

Doing away with finger sticks and external meters would be a step forward. Limited success with an internalized meter has been reported mostly due to the overgrowth with fibrous tissue of the sensor tip. That's the same process mentioned in connection with little islet cell packages. Japanese doctors have begun work with an appliance that measures sugar levels in tissues. The needle is implanted in the forearm and the level appears on a digital readout. After three days the needle must be replaced because of the overgrowth phenomenon but that should be easy. Tissue glucose levels corresponded to blood sugar levels very well in the 49-388 mg/dl range but were always slightly (6-22 percent) lower. Hyper- or hypoglycemia beyond a set limit caused an audible alarm. The inventors hope to make the readout device wristwatch size. Remember Dick Tracy and his radio?

Let me conclude with a little information about Type IIs (NIDDM, Non Insulin Dependent Diabetes Mellitus). It seems that Type II diabetes carries with it a defect in perception of sweetness. Maybe that explains the difficulty in saying "NO" to dessert. I don't know whether or not the researchers who did the following were looking for a pleasant way to reduce blood sugar but seven German Type I diabetics lowered their blood glucose by drinking light beer. Blood sugar levels rose with the consumption of regular beer.

What then is in our future? I hope it's not conversion to rodenthood and the imbibing of light beer. I'll go for islet implants! □

(Note: The above appeared in the December 1986 issue of Renalife, published by the National Association of Patients on Hemodialysis and Transplantation, Inc. Reprinted with permission.

Also, the Diabetic Control and Complications Trial is now well underwav but the data in this article is still accurate.)

Successful Methods

(Continued from page 9)

The next obstacle is keeping track of the days. There are lots of different methods for this. Some people set aside the appropriate number of syringes. When the syringes run out, it's time for a new vial. I use two different methods: I keep a Braille record of the date a new vial will be needed, and I record the new vial date on a cassette tape that I reserve for important matters and reminders. You can keep count of the days with toothpicks or plastic straws—whatever works for you. It's up to you; but, be careful and be consistent.

On vacation or on a business trip, whether traveling by plane, train, or auto, drawing out insulin can be a problem for both blind and sighted diabetics. An unexpected air pocket, pot hole, or a stretch of rough track can mess up the most meticulous measurement. Predrawn syringes and holders can be purchased but it's more economical to predraw your own. A plastic toothbrush holder is a safe and convenient place to store predrawn syringes while traveling.

I have several more diabetic tricks up my sleeve but I'm waiting to hear from you. What tips can you contribute to help your fellow blind diabetic to become more independent? Let me hear from you!

Karen Derrick is a registered dietitian at the Veteran's Administration Hospital of Columbia, Missouri. She is an insulin dependent diabetic who graciously calculates the diabetic exchanges and food values for our recipes.

Send your great ideas to the editor. He is the official taste tester and needs recipes to test his taster.

The following quote appeared in "Beating Diabetes," by Arnold Schechter, *Modern Maturity* (April-May 1988) published by the American Association of Retired Persons, Lakewood, CA.

"Lower salt intake — This will moderate blood pressure and thereby reduce the risk of stroke, kidney disease, heart disease, and damage to blood vessels in the eyes. Salt should be limited to 1,000 milligrams per 1,000 calories."

(**Note:** Restricting salt consumption is advisable for everyone but it is especially advisable for those of us with diabetes. We used the following "No Salt" mixture in *Voice of the Diabetic*, Vol.3, No. 1, Winter edition and numerous readers have let us know that they thought it was very tasty.)

No Salt

Thoroughly mix:
3 tsp. dry mustard
3 tsp. onion powder
3 tsp. paprika
1 tsp. garlic powder
½ tsp. pepper
¼ tsp. ground basil

Store in salt shaker and use in place of salt. Can be used on roasts or other cooking also.

- Anonymous

Egg Salad

by Frances Allen
from Columbia, MO

6 hard boiled medium sized eggs
2 Tbs. finely chopped celery
1 Tbs. finely chopped onion
1 Tbs. finely chopped green pepper
1 tsp. prepared mustard
2 Tbs. salad dressing (light)
Chop eggs and mix well with other ingredients.
Yield: 3 servings; calories: 160; Diabetic Exchanges: 2 meat, ½ fat.

(**Note:** Sandwiches are great but to reduce calories, celery sticks stuffed with this egg salad are also good.

Microwave Scrambled Eggs With Green Pepper

by Ed Bryant
from Columbia, MO

2 medium eggs
½ cup green pepper
1 Tbs. yellow onion
pepper to taste
1 slice weight watchers cheese
½ tsp. margarine (no salt)
Grease bowl with margarine. Chop green pepper and onion and place in bowl. Microwave on high 2 minutes or until tender. Add eggs and pepper and mix thoroughly. Microwave on high for 1 minute. Mix, place cheese slice on top, and microwave 30 more seconds.

Yield: 1 serving; Calories: 210; Diabetic Exchanges: 2 meat, 1 fat.

Creamed Eggs

by April Enderton

1 can mushroom soup
⅓ cup skim milk
4 hardcooked eggs, sliced
4 slices toast
2 Tbs. chopped pimento
In pan blend soup and milk. Add eggs and pimento. Heat, stirring now and then. Serve on toast.

Hard Boiled Eggs

(**Note:** Following is a procedure for making hard boiled eggs that we hope you will try. The end result will be hard boiled eggs from which the shells can be removed easily, and, what is more important, the eggs will be tasty. We find eggs hard-boiled in the traditional manner (leaving them in boiling water from 10 to 15 minutes) to be good, but they taste much better when the following technique is used.)

Place eggs in a sauce pan and cover them with water. Cover saucepan, place on burner, and turn burner on high. When water reaches a full boil immediately turn the burner off. Leave the eggs in the covered saucepan for *exactly 19 minutes*. Remove the eggs and allow them to cool. They will then be ready for some taste tester's eager taste buds.
Calories: 1 medium egg = 70; 1 large egg = 80
Eggs are classified as a meat exchange.
*This method has been tested by our official tester on an electric stove. Perhaps some adjustment will be necessary for a gas stove.

Deviled Eggs

by Frances Allen
from Columbia, MO

6 hard boiled medium sized eggs
3 Tbs. salad dressing (light)
1 tsp. prepared mustard
1 tsp. worcestershire sauce
pepper as desired
Cut boiled eggs diagonally. Remove yolks and place in bowl or mixer. Add salad dressing, mustard, worcestershire sauce and pepper. Beat well and stuff eggs.
Yield: 12 egg halves; Calories: per 2 halves = 85;
Diabetic Exchanges: 1 meat, ¼ fat.
Yield: 4 servings; Calories: 230; Diabetic Exchanges: 1 meat, 1 bread, 2 fat.

(**Note:** The above recipe has been altered slightly to be more diabetically appropriate. It came from a braille cookbook called *Food for Thought* by April Enderton.)

Measurements

1 cup butter or margarine = ½ pound
1 stick butter or margarine = ½ cup
½ cup evaporated milk = ½ cup water = 1 cup regular milk
2 cups packed, tightly ground meat = 1 lb.
2½ cups raisins = 1 lb.
3 cups chopped nuts = 1 lb.
1 tsp. baking soda + 1 cup sweet milk = 1 cup sour milk.
1 16 oz. can = 2 cups.
1 medium lemon = 3 Tbs. juice
1 medium orange = ½ cup juice.
2 Tbs. shortening = 1 oz.
3 tsp. = 1 Tbs.
2 Tbs. = 1 oz.
8 oz. = 1 cup
2 cups = 1 pt.
2 pts. = 1 Qt.
2 Qts. = ½ Gal.
4 Qts. = 1 Gal.
1 Liter + 1 Qt. = 3½ Tbs.
1 lb. = 16 oz.
2 medium eggs = ⅓ cup
2 large eggs = ½ cup
3 large eggs = ¾ cup
1 cup eggs = 4-5 whole eggs *or* 8 egg whites *or* 12 egg yolks

Dry Measurements to Metric System

¼ tsp. = 1 gm.
½ tsp. = 2 gms.
1 tsp. = 5 gms.
3 tsp. = 1 Tbs. = 15 gms.
2 Tbs. = 1 oz. = 30 gms.
4 Tbs. = ¼ cup = 2 oz. = 60 gms.
16 Tbs. = 1 cup = 8 oz. = 240 gms.

DIABETIC EDUCATION VIDEO

HEALTHY MEAL PLANNING, a 15-minute VHS tape, explains the basics of diet to persons with Type I or Type II diabetes. The narrator, who is diabetic, discusses the new exchange lists, shows how to weigh and measure food portions, and emphasizes weight control and a low fat intake. The video comes with six copy-ready handouts on such topics as reading labels, combination foods, and useful cookbooks.

The author is a registered dietitian who has worked for several years with individuals and families with diabetes.

The program may be purchased for $38.00 from: Claire C. Hammer, R.D., 524 Sherman Drive, Marshall, MI 49068. Money back guaranteed if not satisfied. Allow 4-6 weeks for delivery.

NAME _____

ADDRESS _____

CITY/STATE/ZIP _____

Ed Bryant, Editor, *Voice of the Diabetic,* and Vice President, Diabetics Division, National Federation of the Blind, is a long term insulin dependent diabetic. He believes most limitations are self-imposed and stresses positive attitudes because, he says, "they're contagious."

Bryant

by Renee Kane

"If we, the blind, have proper training and opportunity, we can do almost anything we want to."

At age 43, Ed Bryant, vice-president of the Diabetics Division of the National Federation of the Blind, is doing anything, and seemingly everything, he wants to, despite his blindness.

Bryant, who was diagnosed as having sugar diabetes at age 14, has been a member of the NFB for 12 years, and was made vice-president of the Diabetics Division in 1985.

"I just enjoy helping people," he says.

And he does help people. As editor of the *Voice of the Diabetic,* a quarterly newsletter sponsored by the NFB, his words of encouragement and reassurance reach people not only in every state in the United States, but in nine foreign countries as well.

Bryant created this newsletter in 1985. At a meeting of the Diabetics Division, he suggested that there should be a publication to generate interest in the diabetic (especially the blind diabetic), the many problems caused by diabetes, and the possible solutions that may be found to help the diabetic deal with these problems.

Bryant was automatically appointed editor of the newsletter. Edwin Vaughn, who holds a doctorate in sociology at the University of Missouri-Columbia, has known Bryant for years through the NFB.

"He has demonstrated both initiative and organizational skills in creating and making successful this newsletter for diabetics," Vaughn said. "It has experienced rapid growth, which suggests he rightly assessed the need for it."

"The reason we do it really," Bryant says, "is to give support and to show diabetics that they have options."

"For example," he says in the newsletter, "if someone has gone blind due to retinopathy," which was the main cause of his going blind at age 30, "there is no need to hibernate and not be involved in the mainstream of society."

The *Voice of the Diabetic* reflects this attitude. The newsletter has a refreshing, personal approach, which is upbeat and candid.

"Positive attitudes are contagious," Bryant says in an editorial in The *Voice.* "We believe that all diabetics should be part of a good, loving and caring support network."

The *Voice* deals not only with the issues of blindness and diabetes, but also with every imaginable side-effect of diabetes. One of these is organ transplants.

Almost five years ago, Bryant underwent a kidney transplantation. In 1982, at a national convention of the NFB, he heard a presentation on kidney transplants in diabetic patients. The idea was relatively new to him.

After three years, dialysis was beginning to fail him.

"I did not know if I was getting ready to die, but I did know I was not doing well," Bryant said. Already four of his diabetic friends on dialysis had died due to the added strain of dialysis on their cardiovascular systems.

Bryant's research pointed him toward a transplant operation.

"Many people think that major surgery is risky or that they may lose their lives," Bryant says in The *Voice.* "In reality, there are high numbers of diabetics who die each year when they could have greatly improved their quality of life and increased their life expectancy by transplant surgery."

Bryant's sister, Debbie, donated one of her kidneys to him.

"I will be eternally grateful for this generous act of love," Bryant says. "It is a wonderful gift and my feelings for this act are indescribable."

Debbie said the operation was not traumatic, and urges others to donate. "The time and discomfort involved are minimal compared to the physical and spiritual lift experienced by donor and donee," she says in the *Voice.*

Now, in the *Voice,* Bryant urges others on dialysis to "Go for it!" as he did, and have transplant surgery.

Not only does Bryant address people through the *Voice,* which now reaches 40,000 people, but he also has made public speaking his hobby. Born and raised in Columbia, he makes frequent presentations around town, at places like the University and the Lion's Club. He generally speaks about blindness or diabetes, and sometimes about his work with the *Voice.*

As an editor, he says he is strongly motivated to get things accomplished and to see the results of his work. Sarah Townsend, 22, a student at the University, has worked for Bryant for over a year.

"He amazes me...how organized he is," she said. "He has an extraordinary mind. He can recall details, facts and numbers he's only heard maybe once."

Townsend said she really admires Bryant's independence.

"He tries—and does do—more than most sighted people do."

He has a small number of devices that aid him in the office. These include a tape recorder that serves as a notepad, and a talking calculator.

But his most important aid is his long, white cane, designed for his 6'1" frame. It is largely responsible for his independence. With it, he can manage alone. He says that blind people being led around is all right in a new unfamiliar area, but that it reminds him of someone leading a small, dependent child who has to be taken along everywhere.

Bryant usually takes a bus from his apartment at Holiday House to his office at 811 Cherry St. He says he finds it easy to get around in Columbia.

"I go shopping and walk around and I don't have any trouble at all."

But even if a person is capable, independent and self-sufficient, others may prevent him from reaching his full potential because of unfounded stereotypes of helplessness that they associate with blindness. Bryant said he lost his job as an administrative manager for a portrait company in St. Louis unnecessarily.

"I wasn't totally blind at that point," he said, "I was legally blind and could see fairly well." Bryant said that doing his job was "no problem. But the boss I had at that time decided that I wouldn't be able to do it being blind."

He says that is one of the great problems in our country: the stereotypical attitudes about the inabilities of the blind.

Bryant says that many people consider blindness to be a limitation and he believes most limitations are self-imposed. You can overcome them. "Whether your particular limitation is blindness or a dull personality," he says, "you can overcome it."

There are programs to help. Job Opportunities for the Blind is a national job referral service formed by the NFB in partnership with the U.S. Department of Labor. JOB not only helps the blind find employment, it conducts seminars throughout the United States to educate prospective employers about the advantages to hiring the blind.

Bryant says, "We have people in the program from almost every profession: lawyers, secretaries, production-lineworkers — a little bit of everything." He says the mission of the NFB is to help the blind, and finding jobs for their members is "at the top of their priority list." About 70% of the working age blind is unemployed and many of those who are employed are under-employed. Bryant says, "The National Federation of the Blind encourages its members to go out and do things. I work about every day and I travel all around Columbia and the country."

Bryant often travels with his wife, Gail, whom he met 7 years ago at a meeting of the NFB at the University. She has a master's degree in rehabilitation counseling from UMC and would like to work in counseling blind adults, like herself.

Bryant and his wife annually travel to the national convention of the NFB which is always held during the first week in July.

"That's because July 4 is Independence Day," says Bryant, "and we're looking for independence for blind people."

Ed Bryant, it appears, has already found his independence. And now he is doing his best to help others find theirs.

Comments From the Editor

Renee Kane is a student in the School of Journalism of the University of Missouri-Columbia. She worked part time as a reader in the *Voice of the Diabetic* office here in Columbia. One day Renee asked if she could "do an article" on me. I was hesitant to comply because I felt unworthy of such high praise and I don't like "sending to press" personal profiles about myself. However I am cognizant of the importance of publicity and, after much consideration, I decided we could use her article in an issue of *Voice of the Diabetic.* Renee Kane's article emphasizes the vital role played by the National Federation of the Blind in the inception of our rapidly growing newsletter.

The *Voice* is enjoying tremendous popularity. Everyday we receive letters from those who have read our newsletter, like it, and want an annual subscription. The success we have enjoyed can be attributed to our organization, the National Federation of the Blind, and to the many health professionals, NFB members and friends who have contributed their stories and/or financial assistance.

Although I am interested in diabetes and all diabetics, I have a special interest in blind diabetics. I am grateful to the NFB because when it comes to helping the blind help themselves, the National Federation of the Blind is the greatest organization in existence.

To those of you who are newly blind or just beginning to experience vision loss, contact me or the office of the National Federation of the Blind at 1800 Johnson Street; Baltimore, MD 21230 Phone: (301) 659-9314. As President Franklin D. Roosevelt said to console a nation wallowing in what seemed to be the unconquerable Great Depression, "There is nothing to fear but fear itself." Let us hear from you. We can help you, and we appreciate the opportunity to do so.

Carol Anderson Dies

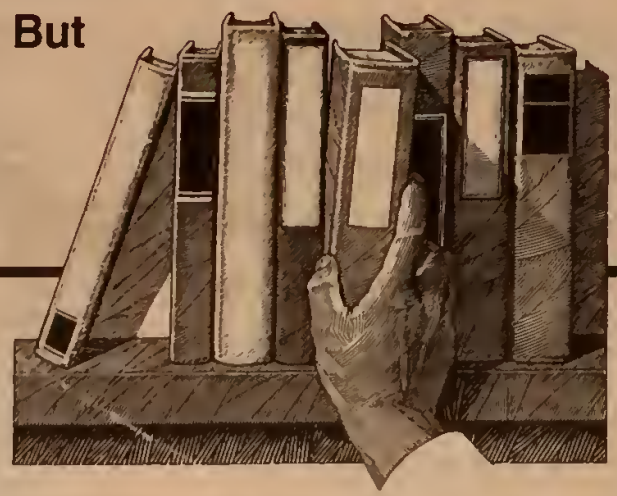
On Sunday, April 10, Carol Anderson suffered a heart attack and died. Carol served as treasurer of the Diabetics Division of NFB. She had been a member of our organization for over two years and had attended two national conventions and two marches on Washington. She was also active in other NFB activities.

After her death, Carol's father said "It is terrible, but we must face reality and get on with our lives." Those of us who knew her will miss her. She was a good friend and a great person.

What You Always Wanted to Know But Didn't Know Where to Ask

(Resource List)

(Inclusion of materials in this publication is for information only and does not imply endorsement by the Diabetics Division of NFB.)



Equipment

Used Beta-Scan Audio Blood Glucose Monitor - 14 months old for sale by a Diabetics Division member. All accessories included plus free bottle of trend strips. Accessories include: Adaptor, brush, guide, automatic lancet device, confidence test strip, and set of instructions.

Regular price: $480.00. Sale Price: $300.00 (negotiable). Includes shipping. Contact Vanessa Coveney at: 3614 N. Douglas Ave. #A-2; Kalamazoo, MI 49007-1274; phone: (616) 349-6983.

Staple device for drawing insulin: Staples are the most economical method available for the blind to independently draw insulin. (See *Voice of the Diabetic,* Volume 1, No. 3, for detailed description of technique.) For information concerning this staple device, contact our aids and appliances chairwoman, Martha LaQue, 284 Caddo St., San Antonio, TX 78211; phone: (512) 924-7606.

Insul Gauge Guide for independent insulin drawing: Comes in 45 of the most commonly used dosage sizes. Gauges can be marked in ink, in braille, with raised numbers, or both with raised numbers and in braille. Price begins at $9.95 (includes handling and shipping). Brochures are available upon request. Contact Meditec, Inc., 9485 E. Orchard Dr., Englewood, CO 80111; phone: (303) 771-4863.

Glucochek S. C. Audio Monitor: New blood glucose monitor with electronic tone signals and large read-out display board. Monitor is produced by EquiMed Medical Products, Inc., 8347 Melrose Dr., Lenexa, KS 66214. Phone: 1-800-452-7536; in Kansas: (913) 541-0800. Price includes accessories such as guide for application of blood into strip, duo-set carrying cases, cassette, large print and Braille instructions. Regular price: $479.95. Special price for NFB purchasers who mention NFB when ordering: $399.95. (See article, "An $80.00 Discount for Glucochek S. C. Audio Monitor," in *Voice of the Diabetic,* Volume 3, No. 1, written by editor Ed Bryant who personally tested instrument. Cassette tape explaining audio-monitor available for $1.00: contact Ed Bryant, 811 Cherry St. Suite 306, Columbia, MO 65201.)

Resource List

Recently we updated a resource list of aids and appliances which was reproduced and made available to our readers as another means of helping fellow blind diabetics self-manage their disease. Karen Mayry distributed this list to various health agencies in South Dakota and, we are happy to report, this method of spreading the word has paid off. Karen recently received a copy of the following memo that had been sent to "All Field Staff" of the Pierre, South Dakota, Department of Vocational Rehabilitation, Division of Service to the Visually Impaired, by Director David Miller:

"Attached is a resource guide I recently received from Karen Mayry, President of the South Dakota chapter of the National Federation of the Blind. Mrs. Mayry has been very active in diabetic education programs for the blind and was instrumental in establishing the Diabetics Division of NFB. The attached resource list is for your use in working with clients. (Karen) has indicated that Braille and tape copies are available through the Diabetics Division. When using this resoruce list with clients, please give proper credit to the National Federation of the Blind. The Diabetics Division can be a positive resource for peer support and information."

A print copy of our resource list of aids and appliances can be obtained by sending a self-addressed, stamped envelope to Martha LaQue, 284 Caddo St., San Antonio, TX 78211; phone: (512) 924-7606. (On tape, $1.00: make check payable to Martha LaQue; in Braille, $2.00: make check payable to National Federation of the Blind).

Since print copies are available free-of-charge, why not ask for more than one and distribute them to the health professionals or other agencies that serve you?

Cassettes

A Professional Approach: Nutritional Care for Diabetes Mellitus and *Meal Planning: A Reference for Healthy Eating* are tapes transcribed from booklets published by the Kentucky Diabetes Foundation. Price $1.00 per cassette. Contact our resource librarian Cheryl McCaslin, 10810 Bravura, Dallas, TX 75217; phone: (214) 557-8774

Braille

New exchange list for meal planning: We have available in braille 200 copies of "Exchange List for Meal Planning" (91 braille-written pages). This revision, the first in 10 years, is the result of a joint effort of the American Diabetes Association and the American Dietetic Association and reflects today's food values and eating patterns. It continues to restrict fat but emphasizes higher carbohydrate and fiber foods. Nutritive values have been increased in such foods as fruits, milk products, and carbohydrate/starch exchanges. New additions include a list of free foods, exchange values of combination foods, and a list of foods for occasional use. There are also a glossary of nutritional terms and an index of foods.

The cost for the braille "Exchange List for Meal Planning" is $15.00. Make check payable to National Federation of the Blind and order from Karen Mayry; Diabetics Division of NFB; 919 Main Street; Suite 15; Rapid City, SD 57701; phone: (605) 348-8418.

Discount Pharmacy

Free medical mail order catalog: Hospital Center Pharmacy, 433 Brookline Ave., Boston, MA 02215. Phone: 1-800-824-2401 or in Massachusetts, 1-800-462-1122. Medicine and medical appliances offered at a discount. A free catalog can be obtained by contacting the Hospital Center Pharmacy at the above address or phone number.

Print

Two new books published by the Diabetes Center, Inc., P.O. Box 739, Wayzata, MN 55391; phone: (800) 848-2793; may interest those restricting the fat, cholesterol, salt, sugar, or calories in their diet:

Pass the Pepper Please, by Diane Reader and Marion Franz focuses on imaginative ways to avoid salt in your diet. This book discusses hypertension, but is not a recipe book. Price: $5.45 (does not include shipping).

The Guiltless Gourmet, by Judy Gilliard and Joy Kirkpatrick, is a collection of gourmet meals that are low in salt, refined sugar, and cholesterol. Price: $11.45 (does not include shipping). Both books are available in bookstores or from the publisher.

Diabetes Dateline is produced by the National Diabetes Information Clearinghouse and is made available free of charge. Questions and comments should be referred to Beatrice Jakubowski, editor, National Diabetes Information Clearinghouse, Box NDIC, Bethesda, MD 20892; phone: (301) 468-2162.

About 500,00 people in the U.S. are blind, and each year 50,000 more will become blind. However, blindness does not need to be the tragedy that it is generally thought to be. With proper training and knowledge, blind people can be productive, first-class citizens. But first the blind individual must know where and how to get the training or services he or she needs.

With over 50,000 members, the National Federation of the Blind (NFB) is the largest organized group of blind people in the world. The NFB has and offers extensive information on all subjects relating to blindness and pertinent to blind people. There are many popular terms to describe us, but none of them captures the work the NFB does. For some blind people, we are the path to many services. For some, we are the way to survive while trying to get services. We are an advocacy group, a provider of legal defense, a self-help group, a government watchdog, a special interest group, and a public information center with resources available to anyone who is interested.

There are local NFB chapters in almost every city of any size in the United States. These chapters can offer any of the services the NFB has, and also arrange presentations to

PERMISSION TO COPY

We grant anyone permission to copy any portion of our newsletter. We ask only that you let whomever receives a copy know where it comes from and how to contact us.

educate and enlighten groups interested in blindness. You are urged to contact the National Federation of the Blind for information or assistance concerning any issue dealing with blindness.

You may call or write us at our headquarters:

The National Federation
of the Blind
1800 Johnson Street
Baltimore, Maryland 21230
(301) 659-9314

Or contact your local chapter of the NFB. We're out there to help you help yourself.

The Blind At Work

The Job Opportunites for the Blind (JOB) is operated by the National Federation of the Blind in partnership with the U.S. Department of Labor. JOB is a listing and referral service for blind job applicants. The organization also produces and distributes the JOB RECORDED BULLETIN and SPECIAL BULLETIN for blind job applicants and their potential employers.

If you are blind and looking for a job, they can help you with your search. JOB provides recorded materials concerning the publications of the Department of Labor and conducts seminars for blind and blind-deaf applicants to help them learn about their skills, educate them about laws and regulations, and to encourage them as much as possible in their job search.

Hiring the blind is reasonable, proper and necessary. It is time for America to recognize the blind as a competent and energetic minority in our midst. For more information concerning JOB contact:

Ms. Lorraine Rovig
Job Opportunites for the Blind
1800 Johnson Street
Baltimore, Maryland 21230
1-800-638-7518

Diabetes — Without High Blood Sugar?

(Continued from page 4)

Caslin. Actually, diabetes mellitus and diabetes insipidus do occur together slightly more often than would be expected by chance alone. This association is know as Woolfram's Syndrome. It includes not only diabetes insipidus (DI) and diabetes mellitus (DM), but also a form of blindness, optic atrophy (OA) and deafness (D). Woolfram's Syndrome is also known by the acronym DIDMOAD Syndrome. It is quite unusual but is interesting in at least two aspects. First, frequent urination can persist despite good blood sugar control because of the coexistent diabetes insipidus. Second, it can explain the unusual occurrence of blindness in someone with diabetes mellitus for less than ten years. The usual type of severe diabetic eye disease takes at least ten years to develop.

Diabetes insipidus is much less common than diabetes mellitus. Woolfram's Syndrome is even less common, but unfortunately someone has to have even the rarest of diseases.

Tidbits And Humor

THANK YOU

Voice of the Diabetic has been our most powerful and far-reaching medium for spreading the word about the Diabetics Division of the National Federation of the Blind and extending our support and information network. But, without the help of volunteers, circulation of the *Voice* would be impossible.

We, the members of the Diabetics Division of the NFB, would like to formally thank all the volunteers who have donated their time and efforts to help our organization. It would be impossible to thank each volunteer individually, but listed below are a few of those who have regularly and reliably assisted us:

Arnia's gum labeling crew. Arnia Watson leads a group of work-a-holics who attach gum labels to the newsletters and then sort them by zip code for bulk rate mailing.

Gary Wunder, President, NFB of Missouri, and board member of the national NFB. Gary contributes both his time and his computer. He has formatted our mailing list and the many other lists needed for our operation — an invaluable contribution. Gary's wife, Sue, runs off many of the needed labels and lists.

South Dakota State Library for the Blind and Physically Handicapped. Dan Boyd, Director of the library, organized a group to read our newsletter onto cassette tapes and then duplicate and mail the tapes.

Many have sent in their personal stories to be printed in the *Voice*, and several health professionals have enforced us with their expertise. We have been helped by typists who prepare our articles for publishing, readers who provide the eye-sight necessary to absorb the various items that cross the editor's desk, drivers who run errands, and many others. To all of you who have helped to make *Voice of the Diabetic* possible, we say Thank you and we realize how inadequate those two words are.

WHAT IS THE VALUE OF ONE MEMBER?

Ten little members standing in a line.
One disliked the president, then there were nine.
Nine ambitious members offered to work late.
One forgot her promise, then there were eight.
Eight creative members had ideas good as heaven.
One lost enthusiasm, then there were seven.
Seven loyal members got into a fix.
They quarreled over programs, and then there were six.
Six members remained with spirit and drive.
One moved away, then there were five.
Five steadfast members wished there were more
One became indifferent, then there were four.
Four cheerful members who never disagree, til one
complained of meetings; then there were three.
Three eager members! What do they do?
One got discouraged, then there were two.
Two lonely members; our rhyme is nearly done.
One joined a bridge club, then there was one.
One faithful member was feeling rather blue—
Met with a neighbor, then there were two.
Two earnest members, each enrolled one more—
Doubling their number, and then there were four.
Four determined members just couldn't wait—
'til each won another, then there were eight!
Eight excited members signed up 16 more.
In another six verses, there'll be
a thousand twenty-four!

Anonymous

(Note: The above appeared in the April 1988 issue of Insight, a newsletter published by the NFB of South Dakota.)

Too Many Get-Well Cards
by Ed Bryant

As we have mentioned many times in the *Voice*, the Diabetics Division of NFB is a support and information network. Support can be given in many ways: Through a phone call, a letter, sharing a triumph or a setback. "Support" is supplying that crutch each of us needs to lean on at some time or another in our lives.

For us diabetics, a stay in the hospital often means a serious complication and is accompanied with misgivings, doubts, and fears. A get-well card helps — have you ever heard anyone complain of receiving too many?

The Diabetics Division has a Get-Well Committee that has all the good intentions in the world but needs more members. To become a member of our Get-Well Committee, send me your name, address, and phone number, go out and buy some get well cards, and wait to hear from me.

If you (whether or not you are a member of our Get Well Committee) know a diabetic who is in the hospital or will be going into the hospital and is in need of support, write or call me. Let me know some details such as the name of the patient, the name and address of the hospital, and the reason the patient is in or will be in the hospital. I will spread the word by contacting all Get Well committee members, Diabetics Division officers and leadership. Our goal is to find that hospitalized diabetic who receives too many cards.

Q: Do you know what you get when you take the middle out of a hot dog during the latter part of October?
A: You get a hollow weiner.

Membership Dues

In July each year membership fees are due. The amount is *$2.00.*

If you are a member of the Diabetics Division of NFB and have not as yet paid your dues, we would appreciate your doing so. Please make your checks payable to National Federation of the Blind and send it to Editorial Office, 811 Cherry St., Suite 306, Columbia, MO 65201.

Voice of the Diabetic's annual publication and circulation costs run about $8.00 per subscriber. Any contribution you are able to make to offset the increasing expense of providing this newsletter is appreciated. Thank you.

Diabetes Education

Lucy Mullen, R.N., B.S., Assistant Director of Education, International Diabetes Center, Park Nicollet Medical Foundation, 5000 West 39th Street, Minneapolis Minnesota, wrote to let us know about the diabetes classes given by the International Diabetes Center in Minneapolis. Classes will be held the weeks of July 25; August 8, 22, and 29; September 12 and 26; October 10 and 24; November 7 and 28; and December 12.

If you would like more information, call (612) 927-3393 and ask about the 1988 Class Schedule — Health Professionals.

(Continued on page 16)

Tidbits And Humor

(Continued from page 15)

Out and About

The above silhouette shows a blind man carrying a briefcase and walking with a long white cane. Tom Stevens is the represented figure of the silhouette. He is an active federationist who is the chairman of the Associates Program of the National Federation of the Blind. In the past, Tom has served as president for the NFB of Missouri, President of the NFB of Missouri Columbia Chapter, and other numerous positions.

Tom Stevens exemplifies independence for the blind and is like so many members of the NFB—independent and tenacious! The article "We Can Do It" by Marc Maurer in this issue of the *Voice* is printed over Tom's silhouette.

(**Editor's Note:** The National Federation of the Blind is not an organization speaking for the blind. We are the blind speaking for ourselves.)

(**Note:** The following is part of a letter from Tom Stevens, chairman of the NFB Associates Program, in which he explains the importance of associate members.)

Ninety five percent of persons who become blind are adults at the time it happens, just like you and I. Often, total blindness is not the case. But there is enough loss of vision that reading, and driving, are not possible or safe. So, we must seek and use alternatives.

As sight diminishes, some people are so afraid that they try to fake it. They would rather lose their job than *admit* vision problems, *find* answers such as the National Federation of the Blind can provide, *take* a leave of absence and later *return* to the same job. Some employers are so uninformed that they believe that if a person is blind, they can do nothing. Thus, they deny employment opportunities. This is why blind persons as a group experience 70, YES, 70 percent unemployment.

Unemployment deny blind persons an income. The only alternative is welfare rolls. Thus, the blind person is often involuntarily forced into a minimal existence by the very persons who on the one hand deny jobs and on the other pay the taxes. We of the NFB strive mightily to gain employment and to make employment opportunities available by informing both blind persons and employers. Our program is called "Job Opportunities for the Blind." In its seven years of existence, nearly 800 persons have gained jobs through this effort. The annual tax savings are in the millions every year from this program.

We fund the program jointly with the U.S. Department of Labor. Labor officials regard the program as one of their very best. We use donated funds to match Federal dollars. THAT IS WHERE YOU CAN HELP. ASSOCIATE MEMBERS HELP US HELP PEOPLE GET EMPLOYMENT.

Another program is that of our scholarship program. We annually award approximately $60,000 to deserving college students. Competition is stiff. But, when they complete their college, they are far more qualified and can often get employment easier and more quickly. Again, this program is supported by donated dollars, such as those provided by Associate members.

I ask personally that you join us. As an Associate, you have access to information that is positive, regarding blindness. You can help others or help us find and help others. We have an excellent nationwide network and have publications pertaining to children, diabetes, employment, advocacy, legislation, civil rights, educational funding and motivation.

Help us plow the fertile fields of opportunity by becoming an Associate member. Contact the National Federation of the Blind; Associates Program; 1800 Johnson Street, Baltimore, MD 21230.

Newsletter

Wendy Brashares, editor, *AVID NEWS* (Assistance for the Visually Impaired Diabetic) recently wrote us regarding *AVID News*, a publication that attempts to make "the challenge of retinopathy..... a tiny bit easier." The *AVID News* is issued free of charge and Wendy writes that they "are glad to add anyone to the mailing list that sends in a name and address." She adds that *AVID News* "is appropriate for all diabetics with visual impairment, but best suited to those who live in the Western U.S." For more information contact Wendy Brashares, 4603 San Felipe Road, San Jose, CA 95135.

(**Note:** Wendy Brashares is a member of the Diabetics Division of N.F.B.)

Q: Do you know what the duck said when he went to the drugstore and asked for Chap-stik?
A: Put it on my bill.

Make Your Voice Heard

As editor of *Voice of the Diabetic*, I would like to hear about any foul-ups or goofs, as well as your recommendations and criticisms. Articles for *The Voice*, changes of address, and other correspondence should be sent to: Ed Bryant, 811 Cherry St., Suite 306, Columbia, MO 65201. Office Phone: (314) 875-8911.

Life In These Shoes

(Continued from page 1)

Life in these shoes is a challenge. What a challenge we have to live day to day. We receive life-saving, life-giving support from our health care team and support groups. It is up to us to take that support and put it to use. It is a terrific challenge, indeed.

As I close and ponder still what life in these shoes is like, I look down at my calendar and then my watch ... oops! It is time to run out the door to my endocrinologist's office. Whew! Almost missed that one.

Life in these shoes is ..... different ..... rough at times ..... a miracle ..... a challenge ..... and maybe even a little special.

Subscription/Donation/Membership Form

Although the $2.00 annual membership fee of the Diabetics Division of the National Federation of the Blind (NFB) entitles you to a year's subscription to **Voice of the Diabetic,** production cost per annual subscription of the **Voice** is about $6.00. For this reason, we must charge all non-members, health professionals, and institutions $6.00 for an annual subscription. Of course, all donations are accepted and very much appreciated.

If you wish to become a member of the Diabetics Division of NFB, receive a copy of **Voice of the Diabetic,** or make a donation to the Diabetics Division of NFB, please check the appropriate box or boxes below:

☐ I would like to become a member of the Diabetics Division of the NFB and receive *Voice of the Diabetic:*
☐ in print ☐ on cassette tape* ☐ both in print and on cassette tape* ($2.00)
*cassette tapes are provided to the blind on-loan at no extra cost.

☐ I am a non-member or health professional who would like to receive *Voice of the Diabetic.* (Also institutional rate) ($6.00)

☐ I would like to make a tax-deductible contribution of $_____ to the Diabetics Division of the NFB.

Please print clearly

Name _____

Address _____

City _____ State _____ Zip _____

Telephone Number (_____) _____

Send this form or a facsimile along with your check to our editor:
Ed Bryant, 811 Cherry St., Suite 306, Columbia, MO 65201.

Please make all checks payable to the **NATIONAL FEDERATION OF THE BLIND.**